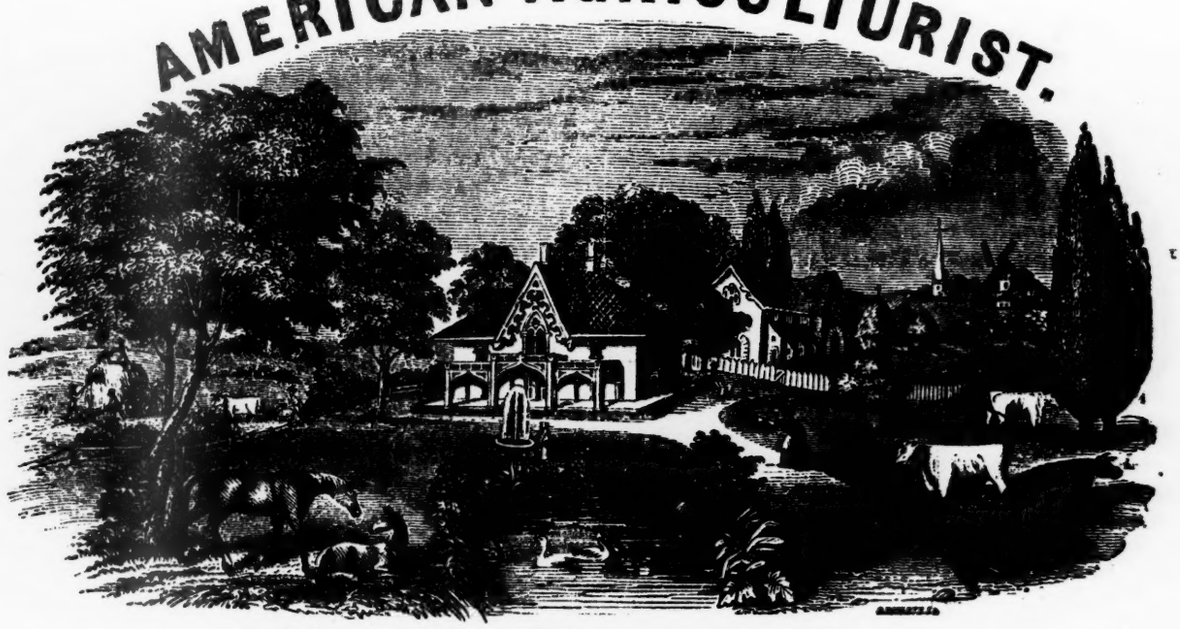
THE

AMERICAN AGRICULTURIST.



Agriculture is the most healthful, the most useful, and the most noble employment of Man.—*Washington.*

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A. B. Allen, Editor. Saxton & Miles, Publishers, 205 Broadway.

TEN THOUSAND SUBSCRIBERS.

If our subscribers continue to flock in for a few months longer as rapidly as they have since the commencement of this volume, we shall soon have the pleasure of recording on our subscription book, Ten Thousand names Paid in Advance for the Third Volume of the American Agriculturist. We had fixed this as our mark in commencing the present year; but we had no idea of being able to realize the number so soon as we now have every reason to hope we may. This speaks well for the agricultural community of our country, and shows that the farmers of America understand their true interests, and are determined not to march *backward*. They can not by any possibility spend a few dollars so advantageously as in the support of agricultural papers. They are their best friends—their best guides—their best instructers—and they also deserve their best support. Indeed, next to their moral progress, the cultivators of the soil owe it to themselves, to their country, and to the world at large, to keep up with the improvements and the discoveries that are continually taking place in the science and method of agriculture; and that man will find himself sadly behind the spirit of the age, and many a dollar poorer, who does not monthly, carefully read and digest at least one good agricultural journal. A political paper in this city says, and we have no doubt truly, that it has received Twenty Thousand additional subscribers to its already large list within a few months. Now will not the farmers of this country do as much for their own profession—the one on which all others depend—and without which the world would starve, as they will for politics?

It is the easiest thing possible to increase the circulation of the American Agriculturist, and even get it up to 20,000 subscribers. One gentleman sent us 28 names last month from one single small town in New Jersey, and he said he should continue soliciting till he had got 50 subscribers for our paper. Would that all who know us would go and do likewise. If every Postmaster in the United States, and British Provinces, would send us *three* names only, we should then have at least 40,000 subscribers. We are perfectly satisfied by a decided effort on the part of our friends that this might be easily accomplished. What a splendid journal we would then give the public. But as soon as we record the number for which we are now striving, namely, Ten Thousand, we shall come out in a still handsomer form than we now present to our readers, together with more illustrations, and if possible, devote more attention to

the matter; although, we can say with perfect truth, in all these respects we think we are deserving praise, and merit a large subscription list. Not a single number we issue which does not contain a dollar's worth of information to the farmer, and this is acknowledged over and over again by our correspondents, as we could easily show from their letters, if we did not think it better for our readers to give them useful practical matter, instead of encomiums upon our bumble selves.

This journal, in its style, spirit, and character, has ever taken the lead of all others; and this is lately evidenced by the attempted copyings of it both in manner and matter, by those who, before it started, considered themselves first among the agricultural community. In thus doing, they doubtless show their wisdom; but it is a tacit acknowledgement on their part of our superiority—an advantage which we shall be careful to maintain, and thus ever keep ourselves in advance, and justly merit the preference of our countrymen. Who, then, will not be a subscriber to the American Agriculturist, and enjoy while they may, the benefits of a perusal of its pages?

DISEASES OF SHEEP.

Cure for Hoven.—Take ¼ lb. of lard, 1 pint of milk, boil both down to a pint, mixing them well together. Give half of this immediately at blood heat, and the remainder soon after.

Another. Give 1 gill of urine with as much salt as it will dissolve.

Hoven arises from eating an excess of wet clover. This should be avoided by keeping the animals from clover fields which are drenched with rain or heavy dews, especially when particularly hungry.

Cure for Scab.—To 1 lb. tobacco, add 12 qts. ley from wood-ashes of suitable strength for washing, and 4 qts. urine. To this mixture add a second of 1 gill high wines, ¼ oz. camphor, ¼ oz. Spanish brown, and ½ gill spirits of turpentine. The application to be made to the sore, and it has never been known to fail.

Cure for Foot Rot.—Pare the foot well and scrape it thoroughly; then add to a wineglass full of spirits of antimony, a piece of blue vitriol the size of a walnut dissolved in a little urine; rub this well on with a stick. If a sheep is very bad, and foot festering or gangrenous, take the yolk of two eggs, mix with one or two oz. gum turpentine, and stir them till they make a salve. Put on the salve after you have applied the first prescription, and tie it on with a rag or piece of leather.

The last resort for foot rot is butter of antimony, and a few minutes after, apply white lead freely.

Cure for Withers Coming Down.—Wash them with milk and water before returning them—or boil 2 qts. milk with a good deal of lard, and wash them often while putting up.

To Make a Sheep own a Lamb.—Milk all over the lamb and under his tail, and rub it on well, then tie up the ewe head and body.

Another. Rub the liver, and light, and contents of the stomach of the dead lamb over the new lamb, and put the skin of the dead lamb to the adopted one.

Cure for Stretches.—Sheep sometimes stretch out their noses on the ground and around by their side as if in severe pain. This is frequently occasioned by an involution of a part of the intestine within another, called, when occurring in the human subject, *intersusceptio.* Immediate relief is afforded when this last is the cause, by lifting up the animal by the hind legs, and shaking them a few times, when the pain disappears.

All the above are furnished us by a friend who has long been practically engaged in rearing sheep. We solicit a continuation of such from all who are practically acquainted with the subject on which they write.

BENEFITS OF SALT AS MANURE.

We have recently been perusing several European articles, detailing experiments made with salt as a manure, and from them we have made the following brief synopsis of its utility.

It attracts the humid vapors and repels frost, and thus assists in keeping the land moist in dry weather, and warm in cold. It keeps everything in the soil in a soft and soluble state, and assists to digest and prepare the food for vegetable nutrition. It destroys many kinds of vermin and weeds, and usually increases the amount of the crop from one fourth to one third; strengthens the growth of everything to which it is applied, and brings all crops earlier to harvest. It generally adds from 5 to 7 bushels per acre to the yield of wheat used in the most moderate quantity, and in all kinds of grain makes more ear and less straw. Mr. George Sinclair obtained at Woburn, on plots of 36 square feet, at the rate of 70 to 95 bushels of wheat per acre, by the use of salt mixed with other manures. It is found equally beneficial to pasture as well as root crops, sweetening all vege-

tation, and making it more wholesome for man and beast. It is a great safeguard against blast, rust, mildew, and indeed all the diseases of grain and vegetables.

Salt is inoperative applied near the seashore, where salt water or spray is already in excess on the land; but every where else it is beneficial. It may be used at the rate of 5 to 40 bushels per acre, though 10 to 20 bushels is better. It can be sown broadcast on the land, or be incorporated in the manure or compost heap. Mr. Prideaux informs us, that mixed with lime and its compounds it undergoes decomposition, producing soda or its combination with carbonic acid, or with humus; all more powerful digesters and feeders than the salt itself; and the muriate of lime, which has the strongest attraction for moisture of almost anything known. Salt and lime work vegetable matters to decay quicker than salt alone. With gypsum it will supply soda and sulphuric acid cheaper than any other material, besides the muriate of lime, so valuable for its moistening quality.

In 1839 we commenced a series of experiments with salt; but soon after, being called to a distant part of the country, and returning to our farm only at long intervals, they were not carried out with that particularity which they ought to have been. Sufficient, however, was known to prove, that applied at the rate of 10 bushels per acre to grass and vegetables, it made them much more sweet and nutritious, and added as near as it could be estimated, about one fifth to the first crop of grass cut for hay, and full one half to the growth of the aftermath, and increased the vegetable crop about one fourth in its yield.

When salt can be obtained cheap we recommend its use. We have seen thousands of gallons of fish and other brine thrown away in our towns and cities, which would be well worth saving and adding to the manure heap.

CULTURE OF HOPS.

Soil.—The best soil for the hop is a gravelly or sandy loam, moderately rich, and if it abound in calcareous matter so much the better. If the soil be too fertile, the hop runs too much to vine, and is troublesome to be taken care *of*, and the heads, though abundant, grow small; on the other hand, if too poor, unless highly manured, there will not be a sufficient crop *to* pay the expenses of cultivation.

Preparation for a Crop.—The hop-field should be prepared for a crop by plowing, harrowing, &c., much in the same manner as for Indian corn. In this country, where the land requires manuring, that from the barnyard is usually resorted to. In Europe, they not only use the barnyard manure, but fish, salt, composts of different kinds, woollen rags, and indeed most any fertilizing substances; such as abound in oily matter are sought after with great avidity for dressing the hop-garden.

Roots for Planting.—The best way to obtain the roots is, as soon as spring opens, to plow within a foot of the centre of the hill on each of its four sides, then with a hoe lay bare the roots, and select those only of the last year's growth, cutting them off about 18 inches long. These are what are called trimmings, and are necessary to be taken from the old hop-roots every year, whether required for new plantings or not. As these trimmings will not be wanted for several weeks after cutting, for planting the new hop-field, they can be kept by burying them in a heap in the ground, or by placing them in a cellar.

Planting.—After the ground is well plowed and harrowed, strike out the rows 6 feet apart each way, running north and south, and east and west; then take a spade and dig *out* a hole for planting 8 inches deep, and 1½ *to* 2 feet in diameter, and if the ground be not already sufficiently rich, put a shovel full or two of well-rotted manure or rich compost *into* the hole, still leaving it about six inches deep. Now select three roots, and cross them in the hole thus,

and cover them with about six inches of earth, leaving the ground level over them. *If* not crossed as above when planted, so as to give the roots a compact form in the holes, they spread too much, and send up their shoots in a wide straggling manner, and it will be difficult to confine them within a proper space for poling. About the time of corn planting, or a little before, is the best period for setting out the hop roots. After they are set out, a corn or root crop can be planted between each row.

After Cultivation.—In a week or ten days, the hops will make their appearance, and the cultivation the first year will consist in merely keeping the weeds down, and the ground well stirred, which is usually done while cultivating the crop which may be planted between the rows of hops. Neither hilling nor poling is necessary; for although the vines frequently produce hops, the crop is not worth harvesting.

Management the Second Year.—If the ground be not sufficiently rich, as soon as the spring opens, the hop-field should receive a dressing of rotted

manure or compost, spread broadcast between the rows, or incorporated in the hill as is thought most advisable. This last operation is performed by opening the ground a few inches near the roots, and mixing the soil with the dressing. After this the poling is performed as soon as possible, so as not to injure the vines which will soon start from the roots and show themselves above the earth.

Poles.—It is important to have these of as durable a kind of wood as possible consistent with other requisites. Cedar would undoubtedly be the best if it had a thriftier growth. The staddles of chestnut, pine, tamerack, and several other of our forest-trees answer very well, but hemlock upon the whole is preferred when it can be had. They should be cut in the winter season, before there is the least danger of the bark peeling, and from thickets where they grow up smooth, slender, and tall; be about three inches in diameter at the butt, and 25 to 30 feet long. Immediately after cutting, take an instrument made for the purpose, something like the carpenter's drawing-knife, only thicker and shorter, and make according to its size, from four to six slits from one half to an inch wide in the bark, on each pole down its sides the whole length. The object of this is to get rid of all knots, and make the pole smooth for handling and picking. The bark which is left on the pole is necessary in order to keep the hop-vines up; when grown on a perfectly smooth pole, they are apt to slip down about the hill. The poles ought to be cut one year previous to using them, and be placed under cover till they become dry; they are then much lighter to handle, and endure longer. As fast as they are cut, sharpen the end about one foot in length which goes into the ground.

Sticking.—For the purpose of making holes for sticking the poles, a cast-iron bar is used one foot long, three inches in diameter at the top, and running to a point at the lower end. This iron weighs about six pounds, and is cast with a socket in the top, into which a handle three feet long is inserted, and it is far superior to a common iron bar for the purpose designed. The hop rows should if possible always run north and south, and two poles be stuck in each hill, two feet deep, and standing two feet apart on the southeast and northwest sides of the hill thus.

The line here is the hop row running north and south; the circle is the hill; and the dots on each side the positions of the poles.

Vines to be saved for Bearing.—Soon after poling is performed, the vines make a rapid appearance, but those which spring up first should not generally be saved for bearing. The reason is that they shoot out of that part of the root nearest to the top of the earth, and though their growth is at first very promising, they do not endure, but soon die; nor are they usually as good bearers as the others which subsequently follow: these should therefore be cut away, or what is better, scrape the earth off slightly from the hills, then break down these first rank vines and cover them with earth; by so doing, they rapidly decompose and become food to the other vines which are left to grow. Another objection to cutting them off is, that they are rather apt to bleed and do the vines great injury.

Tying Up.—Allow two vines to each pole, which would make four to each hill. When the vines get about two feet long, take all those as near the same size as possible, then turn them round the pole with the course of the sun, and tie up. The best material for this purpose is woollen yarn, as anything stronger is apt to injure them. The tyers take an old stocking leg, slip it over the left arm, and thus go through the field performing their work, unravelling the yarn as fast as wanted. The tie must not be a knot properly, but a twist together of the ends. This stays as effectually as tying, and the superiority of the twist is, that as the vine grows, it gradually gives way, and accommodates the thread to the growth of the vine. As the vine above the last joints at the end is very green and tender, and easily injured, it must be tied below these, say between the second and third joints. Every time that the wind blows with any strength it displaces more or less of the ends of the vines, one must therefore go over the field when these occur, and replace them around the poles, and add more ties if necessary. When the vine gets so high that it can not be reached from the ground, a step is used to get at them, or what is better, as the work is rapidly executed, mount a steady horse, and thus ride through the field tying up.

After Culture.—Immediately after tying up the vines, start the plow, and give a sufficient number of furrows each way between the rows; then follow with the hoes, cutting up all the weeds, and slightly hilling. Each hoer should have the stocking leg on his arm, prepared, after finishing hoeing, to tie up any vine which may need it. The second or third time hoeing, precede with the cultivator, and finish off with the hoe, not hilling this time, but leaving the ground as nearly level as possible. Any poles falling

down should be immediately set up again; otherwise, by lying on the ground the hops rot and become worthless.

Picking.—For this purpose a box is used 10 to 15 feet long, 3 feet high, 2 feet wide at the bottom, and 3 feet wide at the top. This is formed by making a light frame first, and then nailing pine boards to it. A handle is placed at each end of the box so as to be able to move it easily about. At the time of picking, this is carried into the field, and a naked pole placed on the middle of each end, running the whole length of the box, for the hop poles to rest on crosswise when picking.

In September, as soon as the hops begin to turn a little brown, and before the heavy frosts set in, the picking commences. Cut off the vines near the ground, pull up the poles as fast as wanted, and commence picking, taking care to keep the hops in the shade as much as possible, otherwise they wilt rapidly and lose strength and color. For the same reason the poles ought not to be taken up faster than wanted for picking. Pile the poles in convenient heaps with the vines on as fast as stripped of the hops. At noon, all the hops which have been picked in the morning are taken to the kilns for drying; and at night, all those picked in the afternoon. If left longer than a few hours before being put to drying, they are apt to heat and become injured.

The season of picking is a very jovial one among the rural population. It must be done in fine weather, and as it is light, pretty work, all the girls of the neighborhood turn out for this purpose; their part of the work being to pick the hops from the vines, while the young men pull up the poles, pile them away when stripped of their burden, and move the boxes from place to place. Songs and tales lighten the labor, and a general merriment prevails. We have known quite as many sturdy swains' hearts lost, and fair maidens, too, during the hop-picking season, as at apple-parings, huskings, and quiltings.

COCUS ON ORANGE-TREES.

We hear of the continued ravages of these little insects at the south, and are again called upon by our correspondents for remedies. We know of nothing more effectual than syringing as recommended page 54 of our second Volume, and for this purpose pure water is said to be just as good as that mixed with ley and soap, or ammoniacal liquor. All that is necessary is a good garden engine, with which one person can throw a column of water 60 feet horizontally, or 50 feet perpendicular, and completely inundate a large orange-tree in five minutes. The cost of these here is $45, and they are very strong and complete, and will last a long time—being worth a dozen of those sold from $15 to $20, in their effect and duration. A correspondent from Florida informs us that saltpetre destroys them, when sulphuric acid has been tried in vain. He does not give the method of applying it. We request the attention of our southern friends to smoking, as applied by S. S. on peach-trees. See page 74 of this No. Syringing we believe the most effectual method if followed up perseveringly with the garden engine.

SUBSOIL PLOWING.

We are highly gratified to observe an increased attention to subsoil plowing, for we consider if it could be generally introduced among us, it would be found one of the greatest agricultural improvements of the age. In volume I, page 199, we gave full details of the successful operation of the subsoil plow in England, where it was shown, that by its use, crops may be doubled without adding a particle of fertilizing materials to the land. Two years subsequent experience by the farmers of that country, corroborate the benefits to be derived by the free use of the subsoil plow, for grain as well as root crops. Mr. Tilley recently asserted before the Cornwall Agricultural Association, that he had the past year raised hundreds of roots of mangel-wurzel, weighing 25 lbs. each; that the crop of these per acre, as well as carrots and turneps, was at least doubled by subsoil plowing.

Five years ago we had a piece of land containing 2¼ acres of a hard clay soil, which, with the best management we could bestow upon it, yielded less than 150 bushels of potatoes to the acre, and 400 of sugar-beet—while parsneps, carrots, or any long roots, it would scarcely grow. We had just heard of Mr. Smith's subsoil plow in Scotland, and determined upon an experiment. We had no plow of this description, nor could we then obtain one; we accordingly took the mould-board off from a large, strong road plow, and used the point of the share alone for subsoiling. We plowed the land in the fall of the year, by taking a common plow and one yoke of cattle, and turning over a surface furrow six inches deep. We then followed directly after this in the same furrow, with three yoke of cattle attached to the road plow, stirring the soil eight inches deeper, making four-

teen in all. This we then bountifully limed, and the next spring as bountifully manured and planted it with roots, and the following autumn obtained over 1,100 bushels of sugar-beet to the acre from it, and other crops in proportion.

Subsoil plows may now be had in this city, of excellent pattern and strongly constructed, from $10 to $15 each, which will stir the earth from 12 to 18 inches deep, requiring from two to five yoke of cattle to move them, according to the nature of the soil, and the depth required to plow.

MARL.

We occasionally hear of the ill-success of applying marl to land, and have recently read an account of quite a noted instance of this kind in South Carolina. Now marls vary greatly in their composition, and must be judiciously used, or they will do injury rather than good. To a sandy soil, clay marl is the best; and to a clay soil, such as abounds most with sand should be applied. Sometimes the land has already lime enough in it; under such circumstances, marl abounding largely with lime may be a misapplication; again, the soil to be fertilized may be greatly deficient in lime, and the marl which is applied to it equally so; it would be preposterous to expect, then, that the marl would prove of any benefit unless it contained other fertilizing substances. Any one can easily tell from the appearance of marl whether it abounds most with clay or sand, and if they discover a considerable quantity of shells in it, those of course are nearly all lime. When the lime is so finely mixed in the marl as to be imperceptible to the eye, its presence can be ascertained by putting a small quantity of it into a tumbler or wine-glass, and pouring a little muriatic acid, spirit of salt, or vinegar upon it, then if there be any boiling up, or rising of bubbles of gas, it contains lime. So small a quantity as ten per cent. of lime in the marl can be thus detected, especially with muriatic acid. Previous to applying marls, however, they ought to be carefully analysed by a good chemist. We have known persons expend $50 worth of labor in misapplying marl, when an analysis of it would have only cost them $5, and they might thus have saved $45. Where marls abound, and their certain effects are not already known, and no person is in the neighborhood capable of giving an opinion upon their merits, it would be well for the farmer to make an application of them at first on a few square rods only of land, where different crops are growing. He must not, however, be in a hurry to decide upon the merits of the marls thus applied, as their full effects frequently do not show themselves till the second and third years.

If our farmers would form themselves into clubs or associations, each contributing the small sum of one dollar a year, they might not only have the benefit of analysis of soils, but many other things. Political clubs are forming all over the land, and the people going half crazy with the idea of who shall be our next President. This to be sure is an important matter, especially when vital principles of government are concerned in the election; but is not the advancement of agricultural knowledge equally so? May we live to see that day, when the great mass of the farmers of the United States will feel the necessity of informing themselves by books as well as by practice of all that regards their vocation.

CULTURE OF ASPARAGUS.

Since the Spanish method of cultivating asparagus by the seashore has become known in England, a complete change has taken place in the manner of growing it there, salt being added now in moderate quantities to the manure used to enrich the beds; it is also spread broadcast upon them, at the rate of 1 to 3 lbs. per square yard, after forking them over in the spring. This makes it much more palatable and tender. The month of April in this climate, or soon after the frost is well out of the ground, is the best time to apply the salt dressing to the beds. A compost of horse manure, mixed with leaves and vegetable mould from the woods, together with a little charcoal, is one of the best manures we ever made use of for enriching the asparagus bed.

Visiting Dr. King's fine farm at Perth Amboy, last summer, we were walking with him one morning along its boundaries on the bay, when within a few yards of the water on a slight ridge of sand, which was subject to be wet by the salt spray, and inundated by a high tide, Dr. King pointed out to us a natural asparagus bed; and although it was late in the season for this vegetable, and most of this before us too much grown for good cuttings, upon our mentioning to him the Spanish method of cultivating it, he directed some of this to be cut and cooked for dinner. To our surprise, notwithstanding it was so old, it proved very delicate and palatable, and completely satisfied us that its superior taste was owing to the salt dressing it received from the sea-water. Gardeners, in the interior of the country, will do well to try the experiment here recommended

with salt; it will cost but a trifle, and do no harm if it produces no good. We scarcely recollect eating delicate asparagus in the valley of the Ohio; it was generally of large growth, tough, and bitter, and none that we ever tasted at the west, did we find to possess the peculiar flavor of that growing naturally at Dr. King's.

New York Farmers' Club.—Two regular meetings took place on the first and second Tuesdays of last month, which were more numerously attended than usual. Dr. Gardner has been appointed consulting chemist for the Club. At the first meeting Mr. Meigs read an able article, translated from a recent report made to the French government, upon the cultivation of tea in China. Much interesting conversation followed on various subjects, when Mr. Barbour, from Massachusetts, gave a detailed account of the success of the silk culture in the west, (where he has just been making a tour,) particularly at Economy, Pennsylvania, and Mount Pleasant, Ohio. Open-feeding is prevailing, and is found to answer well. At the second meeting, manures was the principal topic of conversation. Dr. Stevens gave some curious statements upon the subject of caponising fowls, he having recently made several experiments on turkeys, ducks, &c.

The reports of the Club at full length, are reported in the Brother Jonathan, one of the best family newspapers in this city, published weekly by J. Winchester, No. 30 Ann street, and most ably edited by H. C. Deming, Esq.; price $2 a year. We must refer our readers for more particular accounts of the doings of the Club to this journal.

Salt as Manure.—After our article page 66 was in type, we received No. 31 of the New England Farmer, in which we see that Mr. Wells has used salt as manure for several years. He found by various experiments, that when applied at the rate of 40, 30, 20, 15, and even 10 bushels to the acre, sown broadcast upon the land, it destroyed the vegetation. At the rate of 4 to 5 bushels per acre it proved very beneficial. He recommends mixing the salt with compost heaps as the best method of applying it to the land. Notwithstanding these experiments of Mr. Wells, we are confident that on certain soils, and an inland situation, 10 to 20 bushels, or even more, of salt per acre may be beneficially applied, especially when mixed with the manure or compost heap, and suffered to lie a sufficient time to become incorporated with it.

Lime as Manure.—In addition to the good effects of lime as a manure, expressed by us in our last, it greatly improves the *quality* of the crops where used, making the grass and roots less watery, and gives a greater proportional quantity of farina to the different kinds of grain. It also hastens the ripening of the crop, especially when it is a seed one. It warms the earth, makes the climate more salubrious where used, and adds to the general health of the people of the district. We can not too strongly impress upon the farmer the utility of extending the use of lime upon his land where it has not already a sufficient quantity in it. We shall continue to revert to this subject in short paragraphs.

Much larger quantities of lime would be used as manure in this vicinity, could it be had at a cheaper rate and at more convenient depots. We have many inquiries as to price by the quantity for this purpose, and among others, by the farmers in the vicinity of Miller's Place, near Brookhaven, Long Island. Will those who have lime for sale please answer?

Harrowing Grain.—We have often found great benefit in harrowing winter grain in the spring of the year, as soon as the ground is well settled and dry, more especially wheat somewhat winter killed. It stirs the earth, encourages tillering, and adds to the vigor of the growth of the plant. The harrow should be followed by the roller, so as to replace the roots of the plants which may be laid bare by the harrow, and crowd them into the earth. It is hardly necessary to add, that the harrow should be light, with short, fine teeth. Among the German population of this country, we have seen wooden tooth harrows frequently made use of for this purpose; they asserting, that the teeth were not so liable to injure the plant. We believe that barley, oats, and all spring crops of grain may be harrowed to advantage, whenever the surface of the ground becomes somewhat hard and encrusted, which all clay soils are liable to after a hard rain. Harrowing the hemp crop under such circumstances, we were informed in Kentucky, has been found highly beneficial.

The American Agriculturist for Gratuitous Distribution.—The Hampshire, Hampden, and Franklin Agricultural Society of Massachusetts, has ordered 25 copies of our paper for gratuitous distribution among its members, with a view of giving a stimulus to an improved system of agriculture. We have also 75 copies ordered among the different societies of this state for premiums. We hope that this will be an incentive for others to go and do likewise. In all such cases we shall put our paper at the lowest possible rates at which it can be afforded.

Multicole Rye.—We beg to acknowledge the receipt of a small quantity of this rye from the Hon. H. L. Ellsworth, of the Patent Office Washington, with the following description of it labelled on the package: Imported from France, said to be different from common rye; sow in June; its growth very rapid. The straw is from 8 to 10 feet high, and the ear 10 to 11 inches long. It can be pastured during summer, fall, and winter, and then a good crop taken the following year. It is believed to be midsummer rye of Poland. The weight is 58 lbs. to the bushel; it is said to yield a good crop for dry fodder in the spring, without hurting the crop of rye. The kernel is small.

We gave some account of this rye, page 30 of January No., and have distributed the seed sent us by Mr. Ellsworth among our friends for experiment this season.

THE PEACH-TREE.

(Concluded from Page 45.)

If a farmer neglects his orchards and his garden, and raises weeds, caterpillars, and vermin, which are either blown, or creep, or fly into his neighbor's grounds and destroy his crops, his fruit, or his trees, he should be looked upon as a bad citizen. In fact, the old law of Connecticut, which allowed the selectmen to warn any bad citizen to leave the town, could with propriety be made applicable to him. He should go where he could not hear his neighbor's dog bark, and then he might keep his garden as he pleased.

The toads and frogs should be domesticated, and convenient places left for their domicils, flat stones raised above the ground for instance, will be good places for their retirement. The toad is probably the most valuable of all bug-destroyers, for he does not, like the frog, require water, and will soon come to be fed. The toad has a large progeny, and the frog still larger, called tad-poles, which grow without care or protection from the mother. They are both great devourers of insects, and the latter particularly of beetle-bugs, one variety of which is the curculio, which produces the peach-grub. Some people recommend swine to eat up the fruit to destroy the grub; the toad does more, he not only eats up the grub, but also eats up the beetle which produces him, and thus he wars on both. The toad is the gardener's friend and assistant, and unlike birds and poultry, he does not eat up or scratch up what the gardener values. He will be a hard-worker in a good cause, and should be valued for the good he does. One or two hundred of these valuable quadrupeds in a garden of an acre, would do much to keep your grounds clear, and most gardens are so fenced that you could keep them in, but good shelter and kind treatment would make them value your grounds, and indispose them to stray, even if they could. Crumbs of bread after getting wet are a favorite food, and by giving them these, they will appreciate your kindness. You can assist their carniverous appetite by shaking the rose-bugs from your grape-vines, rose-bushes, and trees. If you will spend the time (which if you are a *gardener* you now spend, destroying the bugs in your melons, cucumbers, cabbage, and caulliflower plants,) cutting out grubs from your trees, and in introducing the *different preventives* to the growth and existence of insects, I think your grounds may be cleared.

Poultry is a destroyer of insects. A hen with her dozen chickens, does immense destruction to all flying and creeping insects of the garden, and if you break up your grounds near your poultry, you immediately have them all leave their other food, and follow the plow to pick up the grubs and worms. Who can estimate the advantage the poultry has done him? Did you ever see an orchard lost? Yes. Did you ever see one saved? Yes. If you conclude the plowing and the destruction of the grubs, saved or greatly helped to save your orchard, you will not be far from right.

But you object to let the hen and her chickens go into the garden. So, Madam Hen, how did you dare go into the garden? You must be tried. You and your chicks are charged with maliciously entering the garden, and when there, with malice aforethought, scratching up, and in several instances, actually destroying divers valuable vines and plants—you must be tried—what say you, Madam Hen?

"Not guilty, and ready for trial. Now may it please your honor, I am rearing like a slave, a brood of chickens for my master to eat; he has no fences to keep us out, and withal, leaves us very hungry, and I went there for food—fences are the only laws we understand. Your maxim, *ignorantia legis excusat nemenen* (ignorance of the law excuses no one) is no law for hens. But I scorn to take advantage of such plea, and shall show that instead of destroying plants I save them. I admit that early one morning in May I entered the garden with my chicks; the first bed we passed over was a strawberry bed. We did not even stop to eat the berries, we found no insects there. The next was an onion-bed, we found no insects there, and I clucked my chickens on. The next bed was early York cabbage and cauliflowers. Before getting there, I saw a dozen plants full of maggots half an inch long, pulled and thrown away in the walk. Said I to myself, what a pity I had not been in the garden sooner. I called my brood, we soon devoured these maggots, for they could not get into the hard ground of the walk. I clucked and entered the cabbage and cauliflower bed; here was a sorry sight. Half of the plants kept over all winter had dropped their heads. I saw the grubs had crawled under ground, their holes were quite perceptible close to the root of the plants. I got ready, gave three clucks, and every chicken was at its post. I then committed the heinous offence charged. I scratched, I exposed the grubs, each chicken took one and ran, they were soon back for more; the largest and the worms, I ate myself. I saw an angle-worm too, very large, but my two biggest chickens got hold of him, and each pulled so hard, they broke him, and each swallowed the half. I looked on with silent satisfaction, but just at this time the gardener let fly a stone. What a pity thought I, but clucked a retreat, on the principle of "obeying orders though you break owners." I passed several beds, finding no worms or bugs. I stopped at the melon-beds; at the first hill I saw the rose and flea bug. I clucked, the chicks made short work of them. The black fleas were so nimble that some got into the crevices of the ground, and I admit I here gave a scratch or two, while the chicks picked up the bugs and worms. Here the gardener, to be more sure, sent a stick which hit me and came near killing two of my chicks; but I screamed and ran out of the garden, and my chickens in part after me, and part dodging all over the garden. I called for an hour before I could collect them. While running out, I passed under the Isabella grape-vine, saw any quantity of the rose-bug on the ground, ready to be devoured; then we passed a cherry-tree, the ground covered with decayed cherries, and the worms crawling out to go into the ground for another year. With the best intentions I thought it my duty to

submit; but I frequently looked through the fence and saw the early York cabbage and cauliflowers (the grubs are dainty folks,) all destroyed. I saw the melon-beds three times planted, nor did a hill grow until the bug and fly season had passed—the frost came and destroyed the vines before the melons were ripe."

Madam Hen alleges that at the time complained of, the crop of each chick had a thimble-full of grubs and bugs, and that her own had a half pint; that they would have produced millions of insects the next year. With these remarks she submits her cause.

We must not pass by the quacking flat-footed birds, and against the duck the surly gardener can make no complaint of scratching up the ground; they, the young ducks especially devour insects most greedily.

The carniverous birds are also great destroyers of all grubs, worms, and flying insects. In fact, Providence has created them apparently only for such purposes; but men and boys have determined they can kill them for their amusement, and can do without them, as their flesh is not esteemed good, and is seldom eaten. On our eastern Atlantic border, and for some extent in the interior, the birds have been fast disappearing, while the insects have been rapidly multiplying. The last season we hear of the destruction of the potato crop in whole counties; grubs or insects will be found in some manner to have produced the rot in the potatoes, perhaps by poisoning the sap of the stalk as the sap of the peach-tree is poisoned, by boring the bark.

The charge against the garden birds is, mainly, that they eat cherries, and for this offence a boy is praised for shooting poor robin, whose nest is perhaps filled with young. The destruction which the robin and cat-bird make of worms, beetles, and insects, should, if not for their song, make them sacred birds. They help themselves mostly from the extreme ends of the twigs, perhaps because they know the owner of the tree can not reach them. All the wrens and chipping-birds, swallows, martens, black-birds, &c., do great destruction, and most of them live entirely on insects. To retain these birds, no shooting of them should be allowed, they do a hundred-fold more good than mischief. There should be a law against *capital punishment*, as applying to *them*, and every convenience for their nests should be supplied, and children encouraged to feed and domesticate them.

The crow, too, is a great destroyer of worms and insects. It is said that estimating that their food is only one half of the above kind, that then a hundred crows devour in one season *one and a half tons of worms and insects!*

Certain manures engender insects more than others. Ashes, alkalies, bones, salt, plaster, and lime, poudrette and the artificial chemical manures, the least; horse-dung probably the most. But with all our *preventives* we shall have insects, and war must be carried on against them.

A good general frequently attacks his enemy while in winter quarters; therefore, if not too late, immediately dig round, or if an orchard, plow up the ground; the grubs and lice, (for we have seen some of them live in the ground,) would be turned up in a torpid state to be eaten by poultry and birds, or killed by frost. Salt, too, might with great advantage be sprinkled about the trees on the top of this new-turned earth, being very destructive to worms, and a good manure. Your grocer will let you have it cheap from his fish and pork-barrels; salt with fish and lard oils, are both excellent. The quarters referred to are but the outposts, the main body of the enemy is snug in winter quarters in all the crevices of the bark, and under the bark. These barracks and citadels are to be warred on. A little sapping and mining at the root is first necessary, and you may be certain to be on their trail, if you see the red sawdust; a sharp knife opens a passage for you, where, if you can not knife him, follow on with a wire, and be not satisfied until you bring part of him out. Repair the breaches you have made by plastering them up; the bark will soon heal, and the tree be not seemingly injured by the attacks.

Our most difficult duty is still undone, the eggs of the plant-lice, (different species,) are still to be destroyed; the producers of the *yellows* go yet unscathed—they are now in your trees, in the places described. One thing is fortunate, they can not get out before spring, they can not crawl nor fly; will you let them remain there? Most of them lie well covered with bark; some lie in a web-like covering on the bark, and others conch and scale-like, the last perhaps the same insect that you see always (I may say) on the oleander of the green-house. If the bark is old and tough, and particularly, if in part peeled off or risen up, I would take, if a small tree, a knife, if a large tree, a drawing-knife, and cut the outside rough bark off. Many eggs and embryo worms will fall to the ground exposed, and be destroyed; what remains are most probably still in a position to exist. Moss, if any on the trees, should of course be removed.

The subject is now ready for treatment, it is stripped. Mr. Farmer, suppose a boy had a similar disease, what is your remedy? Rub him well down with grease and brimstone before a fire; the megrims die in the skin, the boy jumps into bed; in the morning washes himself for fear of the disease being known, and all is well. The diseases are both of the *skin*, they are both insects, the application may well be similar. The poor cow too, and sheep, have brimstone and oil applied for the like purposes.

I am aware that some farmers say fish oil will kill the trees. I do not believe it. In August last I put rancid butter and pure fish oil on two pear-trees, each decaying, and having grubs at the roots. Being on quince stocks, and not valuing the trees, I drenched them well; the inner bark of the one saturated with butter soon became of a beautiful pea color, and lifted up, by its expansion, the old bark, where that was not taken off; the old bark became soft and spongy which was previously like metal; the two or three months of fall was all my experience with this tree, but it was enough to convince me that the application was very efficient. The green also showed itself on the inner bark, on the tree to which the oil was

applied, but later in the season. I believe the applications to be about equal, except that the butter had the advantage of salt. We all know that animal fat, grease, and fish-oil, are highly offensive and disagreeable to all insects which are gramnivorous and herbaceous, and we know they are concentrated excellent manures. We have the authority of Judge Buel, that oil will drive the insects from the trunk and branches. Mr. Thorp of England recommends three parts of rosin to one of oil, put on warm with a painter's brush.

Harris recommends scraping and brushing down with potash, soft soap, salt, or pickle, and tobacco-juice. All these are good, and produce effectually the same results: but any animal fat or oil with salt, I should prefer, they are very penetrating; the bark is a great absorbent of oil and grease. Soap-fat and salt are always to be had at a reasonable value. If tallow or lard compose the fat, it should be warmed; in fact, artificial warmth, except of an August day, is desirable. Recollect, this medicine goes far, a small lump of grease covers a great space, the application should extend as far as possible to the limbs. Gas-water, and gas-tar, are recommended by the English books, but they must be greatly diluted, for these refuses killed the fish in the Thames at London. Lime and soft-soap have been recommended, put on as white-wash; the experience of the writer is against such application of lime; the lime is probably too absorbent of the sap, and fills the pores.

The English authorities assert that some of the varieties of the lice are found on the extreme ends of the twigs, the injury to the entire tree is probably much less there, but they too should be reached.

I now come to the last of the remedies, without which, much as I value the preceding suggestions, I fear the tree can not be preserved. I refer to fumigation; that the roots can be preserved, that the bark and large limbs can be scoured by the washes, I verily believe; but the tender twigs and leaves, and fruit, are to be protected. Watering, shaking, and dusting them with snuff and sulphur, are ineffectual remedies in practice, however good in theory. Smoking, as a remedy, particularly for lice, is well known. A few minutes' smoking brings them from the rose and other plants to the ground; a second smoking clears a green-house; the conservatory, and green-house plants could be hardly preserved, except by smoking. The smoking, therefore, must be admitted to be a complete remedy against (I had almost said) the only enemy the peach-tree has. But it will be said, you can not smoke an orchard. I admit the *difficulties*, but it is by no means impossible. You have the material, say tobacco-stems, cheap, or better yet, raise your own tobacco—raise an excess of peppers—purchase a pound of sulphur. I fear I hear some say you have got the salt, but "you have got to get it on their tails." I don't despair—a peach-tree is seldom, now-a-days, over 12 feet in height, and 12 feet in diameter of limbs and foliage. We will look in the face our most difficult patient first.

Procure an old tin or sheet-iron vessel, similar to a smith's or plumber's furnace, having a small aperture near the bottom, and open at top, or an inverted light wooden bee-hive, for but little fire is required to make smoke. Secure this furnace or box to a pole 4 or 5 feet long, flinging first a few dull coals in the bottom, or very hot ashes—then throw in your tobacco, sulphur, Cayenne pepper, &c. Select a damp day in spring or summer, and still weather if you can, and smoke the tree well, and the lice will fall, and the insects which you do not kill, shake from the tree. The first puff of smoke will make most of them loose their hold; move your furnace so that the smoke will reach every part of the tree, sometimes raising and sometimes lowering it, and, if any wind, go to windward. The writer believes a man could not breathe such fumigation many minutes—he would fall. Other more deleterious substances might be applied. The insects referred to, in spring and summer are all life; some have wings, the males particularly, and would, if possible, leave the tree. I think they will be generally killed; but one thing is certain, *the tree will be smoked.*

All insects are particular as to their food. The grub which greedily devours the quince-stock, when used to graft pears on, will not touch the natural pear-stock. It does not agree with Linnæus that they are both the same thing. It is said the brimstone butterfly has been known to fly hundreds of miles to select a shrub, the leaves of which her grub progeny like to feed upon. Now, would any of the insects referred to go to a tobacco, brimstone smoked tree to lay their eggs and rear their progeny? A segar only, will make curtains smell for several days, and a ham never loses its smoky flavor when only wood or cobs are used. The soft and porous leaves readily absorb the smoke fumes of tobacco and sulphur. We of New York do not breathe pleasantly when brush is burnt in New Jersey. I have, I hope, convinced my readers that *much advantage*, at least, may be had by such applications. But I will give them an alternative more troublesome, but more in fact, quite certain.

The last spring I tried the smoking materials above described in a green-house; everybody in the dwelling-house which was only adjacent, coughed and sneezed most violently. I was almost suffocated, being for a moment in the green-house. I gave it up for that day. The next day I took the plants out of the green-house, and had them brought into the yard; some were 6 or 7 feet high, and set on top or on the side of one another. This made a small stack of plants, perhaps 10 feet high, by 8 or 10 feet in diameter. I then took two table-cloths, laid them one on each side of the stack, covering it up to the top, and put two or three pins in the cloth which reached to the ground. I had a good smoke-house, and the whole worked to a charm and no mistake in it. The smoke, ascending through the stack, came down and escaped at the highest open space. After a little while I closed such openings and made others, and sometimes opened the cloths near the top, by which means the current of smoke was carried in different parts, smoking all alike.

Now I recommend the same application to the 12 by 12 peach-tree, with some little modification.

On the first bursting of the buds and starting of the leaves, procure some cheap cotton-cloth, cost 4 or 5 cents per yard—50 yards might be required to make a tent-like covering for the tree. Open at one side, and when the tree was enclosed, let the sides be brought together. The extending it over the tree might be assisted by a pole of 12 or 15 feet in length. If the tree is 12 feet high, and the limbs and foliage 4 feet from the ground, there would be 8 feet to be covered, say 4 yards on each side at bottom, and 4 more at top; costing, say $2.50. A hogshead-hoop, and attaching the falling folds to it, would facilitate the operation. A pole stuck in the ground and the tree supports it all. Boys could now do the smoking—less than 30 minutes would suffice, or 25 trees might be smoked in a day. Each tree of such size ought, on an average, to yield three bushels, and be worth, to a private family, or in the market, a dollar a bushel. If we estimate a man and two boys at $1.50, use of materials at 50 cents, is $2, twice repeated, each tree or 3 bushels of peaches would cost 16 cents, or 75 bushels $4. I am supposing you have now got the trees, and they do not bear. This is certainly much cheaper than to buy trees, plant them, and have them occupy the ground, and produce nothing. If you have large orchards you can afford to do your work with a handier contrivance.

Erect a slight frame twenty feet square, and fifteen feet high, so as not to require sleepers on two sides. Enclose and cover it, (conically in part,) transport it with your ox-cart or wagon from tree to tree, covering them; if it requires strength on the open sides, shifting-bars might be used, and slight drop-curtains completely enclose the tree. Our trees can only be relieved from *all their maladies* by smoking! particularly the highest-priced fruit of the market—the plum. A winged beetle pierces the fruit, the grub grows in the fruit and it drops, while the tree is remarkably healthy. Now to smoke this fruit once or twice, you would make the tree and fruit offensive to the beetle, and he would go elsewhere to deposite his eggs.

Borer.—(Fig. 9.)

Male.—(Fig. 10.)

Female.—(Fig. 11.)

I send you cuts of the peach-tree worm, which I copy from those furnished the Boston Plowman, by Professor Harris, of Cambridge. Fig. 9 represents the worm or borer; fig. 10 the male, which has yellowish wings; fig. 11 the female.

The eggs are deposited in the summer near the root; the grub destroys the bark. These grubs are so well known and described, and their injury is so trifling (in comparison with the lice) to the peach-tree, that I do not more particularly dwell on them; and I have to express my regret at not being able to figure the different descriptions of plant lice. I do not find them figured in any European or American work at my command; they are in fact so small as to make it difficult to do so. The plant louse of the rose-bush, known to everybody, sometimes seen on the peach, is the only kind that is particularly known, but it is said the others are not very dissimilar. It is not material, however, in the application of the remedies recommended for the orchardist, to have a minute knowledge of these small but numerous and destructive class of insects. In fact it is believed no insects are so numerous. We may thank Providence none have so great a number of enemies to keep them in check, otherwise the globe would be covered with them. In addition to numerous insectiverous birds, various bugs, spiders, beetles, and wasps, destroy great quantities. And the larvæ of the lady-birds, and small turtle-back and spotted beetle of the bee-like insect, and of golden-eyed flies, and small ichneumon fly, exist on them. The larvæ of these insects are in Europe collected and put on plants to destroy the aphides or lice,* and they do it most effectually, some of the species depositing an egg, which becomes a maggot, in their bodies.

> 'Thus fleas have little fleas to bite 'em,
> And so go on *ad infinitum*."

S. S.

GOOD EFFECTS OF PLASTER.

A farmer informed me, that in one corner of his pasture, near his watering and salt troughs, his cows used to drop considerable manure; they were also milked during the summer months in the pasture, at and near this spot, so that the land of half an acre had became very rich. The grass grew large, but nothing would eat it. He gave it several dressings with plaster, since which the cows have fed it down as close as any other part of the pasture.

I know a gentleman who keeps a select herd of Short-Horns near Philadelphia; his pastures are small, the feed luxuriant, and he changes them often from one to the other, and sends a man every day to sprinkle plaster wherever any manure has been dropped, and his statement of its efficacy in

* Just after sending my article to press, I find the following account of the increase of the Aphis lanigera, in a late work by Professor Owen, on Comparative Anatomy.

"The Aphis lanigera produces *each year* ten viviparous broods, and one which is oviparous, and each generation averages 100 individuals.

1st generation 1 aphis produces		
2d	100	hundred.
3d	10,000	ten thousand.
4th	1,000,000	one million.
5th	100,000,000	hundred millions.
6th	10,000,000,000	ten billions
7th	1,000,000,000,000	one trillion.
8th	100,000,000,000,000	hundred trillions.
9th	10,000,000,000,000,000	ten quatrillions.
10th	1,000,000,000,000,000,000	one quintillion.

"If the oviparous generation be added to this you will have a thirty times greater result."

making the grass palatable for his stock, corroborates the above, and that the cattle eat all the feed equally, and he thinks the expense of the plaster abundantly paid by fixing the ammonia in the manure, and preventing its evaporation.

A mechanic had a piece of land which he purchased at a low price. It was covered with shrub oaks so thick, that one of your alligators or landpikes would have found a hard tustle to have worked his way through them. He hired an Irishman (the best of all laborers for such work) to grub them out—planted it with potatoes, and the next year after he had a large crop. He then sowed it down to timothy and clover, seeding heavily. It has produced for the last five years from 2 to 2½ tons of hay per acre, at one cutting. He has plastered this land every year, and fed off the rowen. The past season he planted it with potatoes, had a large crop, and next year he hopes to get 100 bushels of corn per acre from it.

A TRAVELLER.

SHEPHERD DOGS.

SPEAKING of dogs, I think the shepherd's dog the most valuable of his species, certainly for the farmer. Our dog Jack, a thorough-bred Scotch collie, has been worth $100 a year in managing our small flock of sheep, usually about 700 in number. He has saved us more than that in time in running after them. After sheep have been once broken in by, and become used to the dog, it is but little trouble to manage them; one man and the dog will do more than five men in driving, yarding, &c. Let any man once possess a good dog, he will never do without one again.

The sagacity of the shepherd's dog is wonderful; and if I had not seen so much myself, I could hardly credit all we read about them. It is but a few days since I was reading in a Scotch paper a wonderful performance of one of these collie dogs. It seems the master of the bitch purchased at a fair some 80 sheep, and having occasion to stay a day longer, sent them forward and directed his faithful collie to drive them home, a distance of about 17 miles. The poor bitch when a few miles on the road dropped two whelps; but faithful to her charge, she drove the sheep on a mile or two farther—then allowing them to stop, she returned for her pups, which she carried some two miles in advance of the sheep, and thus she continued to do, alternately carrying her own young ones, and taking charge of the flock, till she reached home. The manner of her acting on this occasion was gathered by the shepherd from various persons who had observed her on the road. On reaching home and delivering her charge, it was found that the two pups were dead. In this extremity the instinct of the poor brute was yet more remarkable; for, going immediately to a rabbit brae in the vicinity, she dug out of the earth two young rabbits, which she deposited on some straw in a barn, and continued to suckle them for some time, until they were unluckily killed by one of the farm tenants. It should be mentioned that the next day she set off to the place where she left her master, whom she met returning when about 13 miles from home.

The anecdotes of their sagacity are innumerable, and truly wonderful.

I purchased a bitch of the *tailless species*, known as the English drover dog, in Smithfield market some two years ago. That species is much used upon the Downs, and are a larger and fleeter dog than the collie. We raised two litters from her, got by Jack, and I think the cross will make a very valuable dog for all the purposes of the farmer. They learn easily, are very active, and so far they fully answer our expectations.

A neighbor to whom we gave a bitch of the first litter would tell her to go into such a lot and see if there were any stray cattle there; and she would go over the field, and if there were any there, detect them and drive them down to the house. He kept his cattle in the lot, and it was full 80 rods from the house. The dog was not then a year old. We had one of the same litter which we learned to go after cows so well, that we had only to tell him it was time to bring the cows, and he would set off for them from any part of the farm, and bring them into the yard as well as a boy. I think they would be invaluable to a farmer on the prairies. After raising two litters, we sent the bitch to Illinois. I hope farmers will take more pains in getting the shepherd dog. There is no difficulty in training. Our old one we obtained when a pup. and trained him without any trouble, and without the help of another dog. Any man who has patience, and any *dog knowledge* at all, can train one of this breed to do all that he can desire of a dog.

T. C. PETERS.

Darien, January, 1844.

We hope that Mr. Peters will now send us the price of his dogs if he has any for sale, for we shall have a dozen inquiries within a fortnight after the issuing of this No. Well-trained shepherd or cattle dogs in this vicinity are worth from $25 to $35, and scarce at that. Puppies 3 months old, from $8 to $10.

FREE MARTINS BREEDERS.

BELIEVING that many persons are not aware that a female will breed that is twin to a male, I am willing through the Agriculturist to certify, that two instances of the kind have occurred within two years, both within my immediate neighborhood. In the first instance, I had no difficulty in ascertaining that the female was the larger of the two when first calved; the last I did not see for some time after they were calved, and the owner did not seem to recollect that there was any difference in the size of them. I am strongly inclined to believe that in both instances the males were somewhat inferior to the females in size when first brought forth. I have known quite a number of instances in which the females would not breed; but whether they, or the males to which they were twins, were the largest, I know not. Should it be a fact that when the female is the larger of the two, they are just as likely to breed

as single calves, I think it would be worth knowing. One of my neighbors quite lately informed me that he had a pair, but supposing the female would not breed she was slaughtered, when it was found that she was in calf.

JOSEPH COPE.

Kirkleavington, Pa., 20th of 1st mo., 1844.

TOPPING COTTON.

THE December No. of your ever-welcome paper came to hand this day, and among its useful articles, my attention is drawn to that from C. McD., of South Carolina. I must first thank him for the kind manner in which he has alluded to my articles on the culture of cotton, as published in your work, and acknowledge to all whom it may concern, that I do indeed feel happy in having done some good; of having somewhat returned benefits for the very many I have received from farmers and farming papers. The amount of knowledge I have gained by personal experience is too limited to benefit any one; I am therefore indebted to books, papers, and men, for all I am able to retail second hand. Mr. McD. refers to the topping of cotton, and says he does not recollect that I touched on the subject. I did not; not that I thought its advantage at all questionable, but partly oversight, and partly because it was so seldom resorted to, that I feared to be considered as recommending anything questionable, thereby injuring the utility I hoped to accomplish in the articles written for your paper.

In the summer of 1832, I think, Mr. John Thomas, of South Carolina, visited me, and among other practical lessons, he urged on me the utility of topping cotton—declaring that it would well repay for the time, whether it were cotton that would yield only 500 lbs. of seed cotton, or of that which yielded 2,000 lbs. To make his declaration as strong to others as to myself, I here state, that this gentleman at the date mentioned had some 200 hands, was a cotton-grower, and had cultivated it for some 20 to 30 years; on the rich lands of the Congaree, as well as higher up the country on Broad river; he was an intelligent man, and truly a warm-hearted southerner—he is now no more.

In consequence of his urging me to try it on a small scale, as this country was new to both of us, I did so, and have had cause to follow it up ever since—sometimes neglecting at the proper time, from pressing occupations, or the season. I kept no memorandum of the difference, though I commenced farming, by keeping notes; but I am confident if followed up, that it will be beneficial two out of three years; and on most lands, will not injure the third year. I give my reason why it may not benefit every year. If the season is wet after the time of topping, say from the 25th of July to the 5th or 10th of August, there will shoot up water sprouts, which will shade the under bowls so as to prevent them opening well; it will make a heavy top crop of bowls, which will cause the stalk to bend down, and if any wind comes with the rain, the stalk can not regain its upright position. If the season has been very dry, the cotton will pretty much cease growing by the time of topping, and will not then be advantageous, unless done earlier—which, if I ever have another chance, I will try.

Topping is advantageous for the following reasons: the forms or squares, and small bowls, will not be cast off so readily, the upper bowls will mature sooner, make less leaf to be falling on the cotton, and the top bowls, principally, will be larger than otherwise. Last year I topped cotton on the first day of August—this year I did not top at all, owing to the wet season. I would not top cotton during a wet year, till I had more knowledge on the subject, for fear of the water shoots, but would not hesitate if a dry one.

BENEFIT OF MANURE FOR COTTON.—I have not seen marl used, but I can satisfy any one who doubts the effect of manures for cotton, and of cotton-seed especially—that no man ought ever to think of leaving a level farm, the house and friends of his childhood to seek rich lands. This year has been more favorable for thin lands, than usual; but whether for stiff clays is rather doubtful; and whether my manured land did better on this account, I know not—but here is the result. My orchard lot contains 24 acres, in which are ½ an acre in grass, ¼ in a flower garden, and near ¾ in roads and gin-house; I therefore say there are 23 acres in cotton, 9 of which were manured with cotton-seed, and about one with barnyard manure. From the 23 acres I have gathered an average of 1,138 lbs. per acre. The poorest land on the place, and the poorest portion was manured; a part of the unmanured, say 4 or 5 acres, could not have averaged over 700 lbs. per acre. This field has been in continued cultivation since 1828; has on it some 270 peach-trees, 3 years old; 50 small pear, apple, and cherry, with some 30 large peach-trees; besides, two rows of morus multicaulus, forming an avenue to the house. If the trees were deducted, there would not be over 21 acres, which would give me 1,150 lbs. on an average; with enough more, if gathered, to make 1,300 lbs. Another field that is high and dry, gently undulating, cleared in 1833 or '34, and is much richer land, will not give me that average, and was at no period of its growth as good, as was the manured portion.

PLEASURES AND ADVANTAGES OF REMAINING AT HOME.—Let any man "cypher" up the cost of moving—the cost of land—the cost of building—the cost of clearing—to say nothing of the deprivations in a country where farms are to open—the loss of dear associates—our school-mates—and the time required to prepare for making money, and I venture on it, no sane man will move. I want to see many from those old countries here: not that, Indian-like, I wish them to suffer because I have, but that I want a thicker-settled country, and more demand for land. Yet with all this I would recommend them to improve at home where they now are; husband their resources; study the economy of manures, improved agricultural implements, stock, seeds, and the best rotation and management of crops.

Would that man merit aught but opprobrium, who would urge his fellows to sever every tender tie that binds him to "Home, sweet home;" to

even the "old oaken bucket;" to the soil; to his associates and relatives, for the purpose of getting richer land, which, when cleared, and cultivated as is now done, will cause the young flock to wander again—and in reality, only serve to support one generation? I say nay, and therefore urge it on our brother farmer C. McD., as on all others in that good old state, to make it a part of their regular business to save, gather, and make manure; they will find that three years of labor, with the cost and loss of moving, will give them such lands, that they will cling to the "old south state," even if they live in the "Peedee country—God bless you."

Leibig's Letters.—I have just finished reading Leibig's Familiar Letters, and a capital fine thing it is. I wish it had been published prior to his other works, as I think it would have been more generally beneficial; whereas, many who purchased the first works of his, have not read them through, and will suppose this to be a similar work. But the form of letters makes it indeed "familiar," and it treats on "familiar" subjects.

M. W. Philips.

Log Hall, Miss., December 21st, 1843.

In reply to inquiries, Dr. Philips' address is Edwards' Depot. If equally agreeable to our correspondents, we would recommend in communications made us, always dating from their Post Offices, when not that of their residence. They can then be written to by any one who wishes without further inquiry, and with a certainty of the letter reaching its place of destination.

JOTTINGS IN ENGLAND.

We here give the first of a series of articles that are promised us by a friend now travelling in England, and although written with all the ease of a familiar letter, our readers will find them to abound in valuable observations on the agriculture of Great Britain, the writer being one of our own most eminent agriculturist. We expect his tour will be extended to the Continent, and if so, we shall hope for a continuation of his observations there. European continental agriculture is almost unknown to Americans, and yet many valuable things are to be found there, well worthy the attention of our countrymen.

London, January 3d, 1844.

English Horses.—Among other things, I have been looking round me with some reference to the relative excellence of the English and American horse, as alluded to in an editorial article which I remember to have seen in the American Agriculturist; and though I then doubted the correctness of your opinion, yet I now think, on the whole, that a certain class of horses here, answering to our horse of all work, is an inferior animal. I must, however, think that the strong English hunter, the great weight carrier, the noble animal that is master of sixteen stone, [224 lbs.,] across a heavy country, is of all others *the very horse* for our purpose; for in him are united size, power, activity, and courage, with all the *clean* and valuable points of a well-bred horse. At the cover-side, you may see gathered together, for the day's sport, some fifty or sixty such; but in my own country, some few occasionally cross my path, but nowhere, and on no occasion, is it the general character of our horses.

When I consider the small difference in expense between raising good and bad animals, and the vast difference in their value when fit for market, I am only astonished at the short-sightedness of our farmers, and their "penny-wise and pound-foolish" principles of using a cheap stallion, by which they often save Ten Dollars, and as often lose Fifty. Good breeding must be based on good blood. The carriage-horses now in "town" are very ordinary, and are by no means as closely matched as they are required to be in the city of New York. But I am told that "London is *empty*," and consequently the best horses are in the country; and I doubt not that in "the season," London contains more fine horses than any city in the world—*nous verrons*—(we shall see.)

Unsound Feet.—Of one thing I am well convinced, that there is very much more unsoundness of feet here than with us in America, which I am inclined to attribute to a large portion of our winter's work being on snow, which keeps the feet cool and moist, and saves them from the constant jar of a hard, unyielding road; while our comparatively cold open stables render them much less liable to inflammatory disease, affections of the eyes, and a thousand other ills attendant on thick clothing, and close, warm stables in a climate where the thermometer has not as yet ranged below 29 degrees.

Clipping Horses.—And now let me notice for the consideration of such of your readers as are interested in horses, the practice here called "*clipping*," which is in England attended with the best results in every point of view, especially with horses that have long, thick coats, and are with difficulty dried off after their work. The operation consists in clipping over the whole of the horse's coat from his head to his heel, with curved and other shaped scissors made for the purpose, raising at every clip the hair with a very flexible and rather fine-toothed comb, in order to its close cutting without notch or rib. The expense of clipping a full-sized horse is two guineas, or about nine dollars and a half, and is generally performed by three men, who commence at six o'clock in the morning of one day, working all that day through the night, and finishing about noon of the next day; their object in thus uninterceptedly continuing the work, is that they may take advantage of the animal's drowsiness to clip the more troublesome parts about the belly and flank, which in a ticklish horse might otherwise be difficult. One would naturally suppose that such an operation could not but be dangerous to the health of the animal, and that colds, coughs, &c., must ensue, but I was surprised to find that this was by no means the case, and that an extra blanket for a

week or ten days, with a little more care while standing in harness, was all that was requisite to ensure the safety of the horse. After that he is even less liable to cold than before the clipping, from the fact of his seldom sweating, and when he does do so, that he dries quickly, instead of standing for hours in a long wet coat of hair. It also in many cases makes a perceptible improvement in the cheerfulness, and consequently in the action and work of the horse—gives him a most beautiful, velvet-like, close coat—and much facilitates the groom's work of cleaning. &c., &c.; indeed, so generally is the advantage of clipping acknowledged, that even the mail and stage-horses have this expense bestowed upon them; and not unfrequently a cab-horse is seen half clipped, that he may be the easier cleaned from the filth of London mud. Shaving has been resorted to for the same purpose, but is not so well liked. Singing has been practised, and a very clever little instrument was invented for applying the flame; but of all the modes, clipping has the preference, though you find the singer in almost every stable for the ordinary purpose of trimming horses, and is, I presume, now to be purchased in New York; if not, I would recommend attention to it.

India-Rubber Boot.—Being now fairly in the stable, let me mention the patent India-rubber boot, as the very best and neatest protection I ever saw for an interfering horse. It remains in its place, fits close and snug to the ankle rounding in with the fetlock joint to the pasture. As far as my experience goes, after two or three years' use of them, it causes as little, or less chafe, than any others; and when worn on a black leg, draws very little attention to the infirmity of your horse—which, by-the-by, is a very hateful one. What is more absurd than a horse going on three legs, and carrying the fourth, because he can not keep it out of his way?

CULTURE OF CRANBERRIES.

Having been frequently addressed by gentlemen in your state upon the subject of cultivating the cranberry, I beg leave through your paper to answer them, by replying to the following queries of one of my correspondents just received.

1. Are the plants obtained from the berry? It is my opinion they are not, as I have repeatedly tried the experiment of endeavoring to grow them from the seed, and have known others do the same, but without success.

2. Is manure necessary in the rows or hill? I should think it was not, for our greatest yield of cranberries in their wild state, is obtained from cold sour lands.

3. What time in the spring or fall should the roots be planted? I had always followed planting in the spring till the fall of 1842. The vines planted that fall yielded a few berries the succeeding autumn of 1843, but not so abundantly according to their time, as those planted in the spring. This, however, may be owing to the cold season we had; for the cranberry here, generally, was cut short last year.

4. The manner in which I commenced the culture of them, and success up to this date? In the spring of 1840, I planted half an acre with roots, put out in drills 18 inches apart, and 2 inches from each other in the drills. The following autumn, 1841, I gathered 12 quarts of fine cranberries. The next autumn I gathered 28 boxes, measuring one half bushel each box, of which 6 boxes were sent to the American Institute, and were awarded a diploma. The fall of 1842, I gathered 81 boxes from the half acre, and again was awarded a diploma by the American Institute for such as I showed. The past two years have been very bad seasons for the cranberry, the crop having fell short of its usual yield greatly; but not so much so as the common wild cranberry. I have set out plants every year since 1840, taking the most thriving which I could find, and have always had a good yield when the season was reasonably favorable.

Any one wishing to obtain roots will please address me, stating the number of square rods they wish planted, when I will give my prices for the same. Sullivan Bates.

Bellingham, Mass., Jan. 25th, 1844.

SCARCITY OF SWINE AND SHEEP.

Swine of all sorts have been selling high lately, and there is great inquiry for them now. Many think as times improve, and the farmers' spirits rally a little, that Berkshires will be in active demand again at fair prices. I should like to see your opinion on the Chinese breed for this country, for making shoat pork for the city market. There is an immense quantity of that kind sent to New York from this county in the summer months, alive, and in the early autumn months, dead. It is of a superior quality, being fatted from the refuse of the dairy. The Chinese breed, if we could get them to produce fast enough, would do us good. They are small and slow of growth; but they are easily kept, and we could therefore feed more of them—the pork of this breed is most delicious.

There is more inquiry for sheep since the late advance in wool. It is supposed there is not one fourth the number of fine sheep in this county that there was eight years ago, and many will soon regret having so heedlessly destroyed this invaluable animal. S. W.

Orange County, Jan. 19th, 1844.

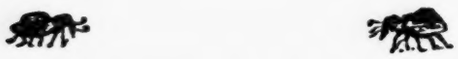
Instead of thorough-bred Chinese, we would recommend our correspondent to take a cross of them upon the Berkshires, as this produce would make just the thing for his purpose. We recently saw at Mr. Woolsey's, and also at Mr. Valk's, on Long Island, some beautiful specimens of the swine kind made in this way. We need not add the repeated experiments we made on our farm several years ago in thus crossing these breeds, as they must be still fresh in the memory of the readers of the agricultural journals. It is sufficient to say that they were highly satisfactory, and found favor with all who desired a medium-sized animal.

THE CURCULIO.

The Curculio, (*Rhynchænus Cerasi*, Peck,) its natural history, habits, character, and the best mode of preventing its destructive ravages; together with remarks on the cause of the disease known as the Warty Excrescence, and suggestions to prevent its appearance. In a letter to the Committee on Fruits of the Massachusetts Horticultural Society. By Dr. Joel Burnett, Southborough, Mass.

This insect was called by Herbst, *Rhynchænus Nenuphar:* by Peck, *Rhynchænus Cerasi*—but commonly goes by the name of *curculio*, or plum-weevil, by horticulturists. "He is a little rough, dark-brown beetle, has two small bunches or protuberances on his back, a rostrum or beak on which are two antennæ.

(Fig. 11.)



The Curculio of the natural size.

He is so shy and retiring and unobtrusive in his character, in his beetle-stage, that he is not liable to be seen unless he is searched-for purposely, and this is the reason why so little is known of him generally.

When you have discovered that he is operating upon the fruit, which you may know by his peculiar mark upon it, by assiduously watching, you may chance to see him cutting the incision with his rostrum, (*fig.* 12.) If you extend your thumb and finger toward him, it must be done very cautiously and slily, or before you touch him he will drop, as imperceptibly as a small shot would, to the ground.

(Fig. 12.)

The Curculio in the act of making the semi-lunar incision with his rostrum, or beak.

It should be remarked, that we do not know that he uses the fruit for his food, but chooses it as receptacles for his eggs.

He begins his work upon the plum and apricot, as soon in the season as the small cap or covering, formed by the blossom, falls off, but not so soon upon the peach. Examining the fruit occasionally or daily, you are to know when he has commenced his work *by his peculiar mark* or incision, which is readily seen on fruit with smooth skin, as the plum, cherry, apple, &c., but on the peach it is known by a small drop of gum oozing from its surface. It has been stated that the furzy surface on the peach, is a barrier or obstacle in his way, but it does not prove so here, as the injury which it sustains is quite general, unless protected.

I say, then, he is known to be on the fruit-tree by his peculiar mark on the fruit. This mark is the wound he makes with his rostrum, which consists in raising up the skin of the plum to a small extent, under which he deposites an egg. The shape or form of this mark is semi-lunar or crescent-shape, and in the middle of this wound is a small discolored speck, where the egg is placed, (*figs.* 13, 14, 15.)

(Fig. 13.)

Incision near the apex in small plums.

In the early part of the season, or during the month of June, his mark will be found near the apex, or point of the plum (*fig.* 13.)

But after the plum has reached a considerable size, or from the 1st to the 20th of July, his mark will be found at the base, or near where the stem is inserted, (*fig.* 14.)

This last-mentioned place the insect prefers, it would seem, from instinct, lest the plum, by its strong connexion to the tree, should not fall soon enough to secure the welfare of the grub within it; for this vital connexion is sooner disturbed by the worm than it would be if the egg had been deposited at the apex.

When the egg hatches, the larva sometimes, it is presumed, falls from the nidus or nest, and the fruit remains unharmed; but most generally, in four or five days from the time the egg is laid, a small bluish line, near the skin, may be seen extending from his mark, (*fig.* 15,) which signifies that the grub is within. And also when his mark has assumed a bluish tint, you may be certain that destruction will follow; for when you

(Fig. 15.) (Fig. 15.)

(Fig. 14.)

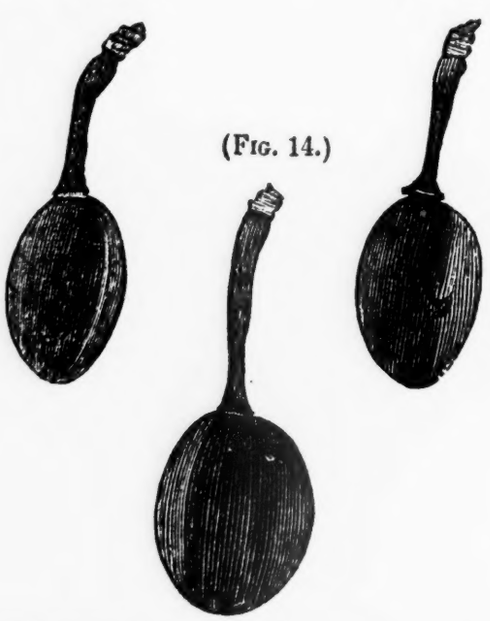


Fig. 14 shows the incision near the base, in large plums. The small or discolored spot, at the inner line of the mark, is the nest where the egg lies.

Fig. 15 shows the blue line, which indicates that the grub is eating within.

see these signs, take the plum from the tree, and cut off a small portion where the mark is, and you will notice that the larva has burrowed down into it.

The effect, upon the plum or other fruit, of the larva within, is to cause it to shrivel and decay, and after a while it falls. By the time the plum falls, the insect has nearly or quite completed his larva or grub stage, and then he leaves it and goes down a little way into the earth.

Here in the earth he undergoes his transformation, (*fig.* 16,) which is performed in about fifteen or twenty days, in the month of June, or fore part of July. But all the larvæ (so far as I have observed) that go into the earth about as late as the 20th of July, do not ascend that season, but remain

(FIG. 16.)

Larvæ of the Curculio of the natural size.

there in the pupa stage, (*fig.* 17,) until the next spring. We are to observe, then, that there are two generations in one season, of these insects, and this fact it is important to know; for if the first generation in the larva and beetle stages is destroyed, we have little to fear from the second, which operates in July.

(FIG. 17.)

Curculio in the pupa stage magnified.

The kinds of fruit, and the only kinds, which the curculio injures, as far as I have observed, are the plum, apricot, nectarine, peach, cherry, and apple, and these I have placed in the order in which he seems to prefer them. But I would remark, that he is not the only insect which makes the apple wormy. The codling-moth does great injury to the apple-crop, and the caterpillar of this moth should not be mistaken for the larva of the curculio.

The curculio does not usually injure the cherry-crop excessively, but it is remarkable what a cause of general devastation he proves to the plum-crop, when he is suffered to go on in his work unmolested. The writer has known large plum-trees, loaded with fruit, in the early part of June, upon which nearly every plum would be punctured, and consequently all would be lost to the cultivator.

The objection, in the community, against cultivating this fruit, is upon the complaint, or fact, that the plums will not hang on until ripe; and nurserymen are often questioned, if they know of any kinds that will not drop before they become matured.

As great a pest as this little insect is to the fruit-grower, I am not willing that he should be loaded with more sins than he deserves. He has been charged with being the cause of the fungus excrescences on the plum-tree, of which he will not plead guilty. True, his larva, and also those of some other insects, it is said, are found in this fungus, and this is the reason why this disease has been attributed to him. My reasons for saying he is not the cause of this disease, may be offered in another place.

It is remarkable how unconfined or unlocated the curculio appears to be. I formerly believed that he was limited nearly to the ground, under and near the tree where he was produced, and that, if the earth under it was paved, or so fixed as to prevent the larvæ from descending into it, that that tree would be secure the following season, at least. But more extensive observation has taught me otherwise. This fact I consider a very important point in this insect's character. In 1838, a new apple-tree came into bearing, having three apples upon it, situated 20 rods distant from any fruit-bearing tree, and I hoped to test the quality of the apples thereby; but I was disappointed. In the first of July, I noticed the spoiler's mark upon these apples, and after a while they dropped off. I have searched after, and found him, upon an apple-tree in a pasture, which stood alone and at a distance from any other fruit-tree. A plum-tree, trained to the east end of my house, bore for the first time in the year 1841. I watched the fruit, and, about the usual time, found his mark upon some of the plums, and secured them. From these observations, I am led to the supposition, at least, that he may not be dependant altogether upon the before-mentioned fruits for the propagation of his race; but when fruits are wanting, he finds other receptacles for his eggs. But this is a conjecture simply. No doubt he is capable of flying to a considerable distance.

Dr. Harris stated to me, that he was not certain that the plum weevil does feed in the beetle form, though he rather supposed he did. But whether he does or does not feed, his organs of taste and smell are rather obsolete or disused, for we are able to state, from observation, that many kinds of odorous bodies which are obnoxious to many insects, are not so to him.

I have tried camphor upon the tree, watered it with solution of soap and of tobacco, and I do not know that he was disturbed any further than he would be mechanically by their application.

I might here notice the inadequacy of other measures which have been recommended to frustrate his operations, but prefer to proceed to a statement of those means which will ensure success, if persevered in, and prove satisfactory.

As the notion is prevalent that he crawls up the body of the tree, I would state that he flies on to it, and, therefore, it is useless to apply any preventive to keep him from ascending that way.

I am free to state, that this insect can not be combated without labor, and the result secured, will very far more than compensate for all labor bestowed, even in a pecuniary point of view.

Believing, from my observation, that he can not be successfully opposed by preparations of soap, and infusions of odorous bodies thrown on to the tree, by means of a syringe, I proceed to state the course which has been followed with success, so far as I know.

Our rule of action should be, *direct aggression* upon him, both in the beetle and larva forms. In the pupa stage he lies in the ground secured from our search.

Watched, as the plum and fruit-trees always should be, by the gardener, as soon as his mark is seen on the plums, which will be generally as soon as the plum is left naked by the blossom, a sheet of sufficient dimensions should be suspended beneath the tree, by two or three individuals, or otherwise; then give the tree a sudden rap, or jar, and the insect immediately falls upon it, and, feigning himself dead, very much resembles a raisin seed in form, (*fig.* 18.)

(Fig. 18.)

The insect, when shook from the tree, assumes the above form, either that of the upper or lower figure, and keeps the feigned appearance a moment or two.

All the curculios on the sheet should be crushed between the thumb and finger, and all the stung plums that fall from the tree should be put into the fire.

I would impress upon the mind of the gardener the importance of assiduously attending upon his destruction in the month of June. The trees should be shaken twice or three times daily, certainly in the morning and evening, in order that the beetles may be crushed, and all the wounded fruit gathered and put into the fire. I have observed that usually after the twenty-fifth of July he is not to be found.

If the first generation, which operates in June, are well destroyed, we have less, yea, very little, to fear from the second generation, which work in July. Children, who are always urged, by impulsive curiosity, to examine and investigate any new and curious object—of an insect, flower, or pebble, are ready and sufficient hands to perform much of this work, and gladly will they perform it when promised a share of the product.

This mode of protecting and preserving plums from the curculio, I have always found to succeed.

I am aware, that the labor required may be thought an objection to this mode of warfare, and that the result will not warrant the time and pains; but if the orchardist will tar his apple-trees to protect against the canker-worm, and the gardener spend time to kill the cut-worm, and water his plants in a dry season, surely this course is also justifiable: the result will justify the means.

A tree standing near the door, if jarred and shook several times a day, as it may be passed, would be likely to succeed, as this course would discommode and frustrate the insect in his work.

Plum-trees, standing in a hog-yard, frequently sustain partial crops, for the hogs are frequently, during the day, rubbing against them, and are pretty sure to eat all those that fall to the earth.

Plums can be saved, even after the egg is laid in them, by a trivial operation, if done before it has hatched; and this operation I have practised successfully and repeatedly.

(Fig. 19.)

Showing the method of destroying the eggs with a quill.

You may smile at a manœuvre, which is to destroy an almost infinitesimal egg, with an instrument made of a quill, like a tooth-pick; but this the fruit-amateur will do with pleasure, if thereby he can save a plum on a new young tree, to test the fruit of which he has been waiting patiently with hopeful anxiety. It is well worth the while to do this on low trees, in point of economy.

It may be well to remark, that the egg is deposited in the inner circle of the incision, under a small discolored portion of the skin of the plum, and the operation consists in removing this discolored portion of the skin, and scooping out the egg with the instrument, (*fig.* 19.)

The desire which has been manifested in the community to possess a knowledge of this insect, the manner in which he operates, and a means of destroying him, must be my apology for thus far prolonging these remarks.

Warty or Black Excrescence.—A communication from William Prince & Co., some few weeks since, to the Editor of the New England Farmer, in which a list of the kinds of plum is made out, which, they say, are not subject to the fungus or warty excrescences, has induced me to state my opinion concerning the nature of that disease.

I do not remember to have seen that disease spoken of except in connexion with the belief that it is caused by an insect; and I believed it to be so produced, until observation proved to me that it was attributed to the wrong cause. The reason any one would offer as proof that the disease was caused by the curculio, is that its larvæ are sometimes found in this juicy fungus.

There is one analogous reason for attributing this fungus to the curculio, or some insect; that is, the production of galls upon the oak by the puncture of an insect, and the depositing his egg in the puncture. But how uniform, in form and size, are these galls, compared with these excrescences, which are very irregular in form and size.

So far as I have been able to observe, by dissecting these fungi, they appear to arise in that part or texture called the alburnum.

I have thought that the proximate cause might be an obstruction in the vessels of that texture, by reason of the unhealthiness of the sap. The vessels burst, and the sap is poured out under the bark. Now the sap is as full of the life of the tree as blood is full of the life of an animal.

This extravasated sap will immediately become organized, or partially so, and, rapidly increasing,

burst through the outer bark and make its appearance.

This fungus is not confined to the young wood, but is produced upon limbs of large size, the outer bark of which the curculio would not be able to puncture.

It makes its appearance from June up to August. These fungi come in all forms; sometimes in a single spot, and then again extend along the limb for several inches, always with an irregular granulated surface. This want of uniformity in form, size, and location, is evidence that it is not caused by an insect. After being cut from the large limbs, these fungi will often sprout out again between the wood and the bark where the wound is made, and require a second operation.

Now, this would not be the case if caused by an insect. This disease may often be noticed under the bark before it burst, upon large limbs, where the bark is strong, which, if slightly opened with a knife, will yield to the pressure, and the fungus soon appears.

While this fungus is young and tender, the curculio finds it a convenient receptacle for his eggs, the juice of which affords abundant nutriment for the larvæ. A pretty sure sign, by which you may know that he has used it for that purpose, is a small drop of gum oozing from its surface; and where you do not see this sign, you may not expect to find his larva within.

I have said that this disease begins in the part called the alburnum. This is the texture through which the sap ascends; but it soon involves every texture of the tree, wood and bark, and is malignant and surely fatal to the limb on which it grows. It is as destructive to the tree as cancer is to the human flesh. These fungi always die the succeeding winter, never live over winter, and remain upon the tree, unless removed, a black, unsightly mass.

I have observed two trees, both of a kind, and nearly of a size, but standing apart and differently located; one would be diseased with the excrescences, and the other would not, while the fruit of both would be nearly alike injured by the curculio; and this fact I consider additional evidence that he is not the cause.

It is desirable both to find a remedy when a tree is diseased, and also a means of prevention. The only remedy I know of, is to cut the tumor out, and this should be done as early as possible. If done early, and with care, the wound soon heals, and the limb is but slightly injured.

But a means of prevention is more desirable than a remedy.

A tree of most of the kinds of plums which may be obtained at nurseries, if placed on a somewhat gravelly soil, whose power to retain water is small, and, therefore, subject to sudden transition from a moist to a dry condition of its roots, every season, I will venture to say will be diseased.

I do not mean that there may not be an exception, and that all kinds are equally subject to it; but I know of no exception, among a number of varieties, which have been cultivated under my observation.

I am inclined to the opinion, that a prevention may be found in cultivating the plum in a loamy soil, rather moist, and in keeping that soil uniform as to moisture and richness.

Any kind of tree is not in the condition in which nature would place it and keep it, when the soil over its roots is kept naked and exposed to the burning and drying suns of summer, or uncovered and unprotected from sudden and intense cold of winter.

Neither can fruit-trees prosper so well in grass land; for, though the covering of grass may serve as protection from extreme heat or cold, yet it will take from the soil the nourishment which should go to the tree.

In what a uniform condition the roots of forest-trees are kept, by the thick bed of leaves which covers the earth, the slow and steady decomposition of which affords the necessary nourishment; and so matted and plaited are they, as to prevent the escape of the fertilizing gases, which must otherwise evaporate unappropriated by the trees.

So far as I have observed, those plum-trees have been exempted from these fungi which are located in good soil not subject to drought or deficient in moisture. Trees standing beside a heavy wall prosper better, (other things being equal,) than those which stand in the open field, on account of the protection which the wall proves to the roots.

Entertaining these views, I would recommend to fruit-growers the following mode of cultivation, as a prevention:—

Let the plum-trees be set in a soil rather loamy and moist, and they may be set within 8 or 10 feet of each other. The soil should be in good condition as to richness, and being made smooth and level, should be covered over with a good coating of straw, old hay, or leaves. This covering is to lie year after year, and decompose as the leaves do in the forest, having addition made to it from year to year, as may be necessary.

Such a course of management will make the soil approximate to uniformity as to temperature, richness, and moisture, and, I believe, insure success in cultivating the plum; and not only is it suitable to the plum, but will enhance success in the cultivation of other kinds.

The above article is copied from Hovey's Magazine of Horticulture, and we are indebted to its obliging editor for the use of the cuts which illustrate it.

SUPERIOR DUTCH CHEESE.

TAKE sour loppered milk, skim off the cream, then set it over the fire in an *iron pot*—brass is poisonous. Let it remain until the curd rises, which will be when the whey is scalding hot at the bottom of the pot; there is a difference in the heat of the whey at top and bottom. Skim the curd into a basket, which is best; let it remain six or eight hours to drain, then break the curd, (on a table,) as fine as possible; after which put the curd lightly in a stone jar, salting it to taste. Let it remain in the jar, stirring it twice a day with a wooden spoon or round stick, keep it loose and light, until it becomes palatable to the taste of the

maker. The cheese acquires a disagreeable flavor if kept too long in the jar. Make the cheeses into small balls, and set them in a cellar. It should not be eaten the first few days, and is best flavored from one week to two weeks old.

AN ORANGE COUNTY LADY.

FARM-HORSES.

THE following article was sent us in May last, but having been mislaid, its publication has from this cause been deferred to the present time.

There is no one item of farm management in the United States, which has received so little systematic attention, as that of raising a breed of horses suited to the varied purposes of a farm. In every other class of stock, we possess to a greater or less extent, original and distinct breeds, long tried and highly approved, for the different purposes for which they are required. Thus, we have the improved Durham cattle for early maturity and profitable milking and fattening qualities; the Herefords, for the yoke and early economical fattening; the Devons for richness of milk, superadded to the qualities of the Herefords; and the Ayrshires, a more recent breed, adapted to the dairy and the shambles. In sheep, we have the silken-fleeced Saxon; the fine, heavy-fleeced Merino, through all the different, yet distinct varieties of Escurial, Paular, Nigretti, &c.; the long coarse fleece and heavy carcass of the Cotswold, Lincolnshire, and Bakewell; and the medium wool, and choice carcass of the South and Hampshire Downs, and Cheviots. Swine run through the various grades of distinctive excellence, the Berkshire, China, Mackay, Woburn, Byfield, Kenilworth, Neapolitan, Essex, &c.; while all the lower tribes of geese, ducks, chickens, rabbits, dogs, cats, pigeons, etc., have their pedigrees as pure and unstained as the most legitimate possessors of an hereditary title.

The horse too, in one branch of his family, enjoys a distinct and honorable lineage, as carefully guarded against all lapse or blemish, as the claimant for royal succession. Sometimes, it is true, there is a blot in their escutcheon, which, owing to great excellence on the part of the individual, the world slurs over, as the loyal subjects of Great Britain have occasionally done, in the instance of their Seventh Henry, and some others; while they dwell on the strong crosses from other branches of the family with peculiar emphasis and complacency. American Eclipse, and his peerless daughter, Black Maria, have been more than forgiven, for the trifling hiatus in their pedigree, in consideration of the unequalled progeny of the former, and the hitherto unsurpassed performance of his three successive four-mile heats, and the yet unattempted imitation of the five four mile heats of Black Maria. If we except the large, mongrel, Pennsylvania cart or wagon-horse, which possesses the greatest claims to a definite race, *a breed, a distinct, peculiar breed of horses, the best fitted for the general purposes of a farm, the horse of all work, is not known in America.* We have in certain sections of the country, a full supply of valuable horses, from which may be selected a large proportion of individuals well adapted to a variety of purposes, and perhaps to *all* the wants of the community; but they are of every form and feature, and can be matched, only occasionally, in all requisite points.

It is vastly to be regretted, that such enormous sums have been expended for the importation of racing-stock, while so little has been accomplished for the production of the more humble and more serviceable beast. Millions have been paid at the south and west, for turf nags; yet how small the proportion of really useful animals do they possess at the present moment. In most instances, their importations were made without reference to the improvement of the farm-horse, or without judgment, if they were; and the breeding has been without system or design. Fancy, not utility, has been the motive, and fanciful enough has been the result. There are thousands of horses, for which, for the single item of begetting, their owners have paid from $50 to $100, and which have cost them as much more, at least, to rear, and yet a purchaser would make an indifferent bargain in paying for them the cost of their conception. Many choice animals, it is true, are owned there, which however, are principally suited to the saddle, and not to the harness, which is the great requisite in the farm-horse. As those are the sections of the Union distinguished, *par eminence*, for the race-course, it is a very legitimate conclusion, that the turf is not always the parent of improvement in horse-flesh. Is it essential to this improvement? Let us see.

In the six north-eastern, or New England states, horse-racing has either not been practised at all, or tolerated in former times, occasionally, by some of them, only to a very limited extent. Massachusetts and Connecticut have never permitted them, and *the fancy* who were to attempt such a test of horse-excellence in either state, would be treated to an apartment in their jails, or a seat in their stocks; the latter state, placing the champions of the turf, in the same category with the votaries of Thespis or Terpsichore, play-actors, dancers, circus-riders, mountebanks, and the whole race of Harlequins and Judys. Yet what has been the result of horse-breeding in these states? Briefly, it may be replied, that with comparatively no extra expense for costly importations, they have, till within a few years past, produced a more valuable, serviceable race of horses, than could have been shown from an equal territory, in any other portion of the country. The Yankees, true to the instinct that sent them 3,000 miles into the wilderness, from the most civilized nation in the world, enjoying all the blessings of an hereditary royalty and aristocracy, a state church, and numerous other privileged classes, broke loose from many of the dogmas of the day, and from none more effectually, than the long-established one, that successful racing was the only true and proper test of excellence in a horse. They bred exclusively from the manifest, tried, and acknowledged merits of an animal, and with some, yet it must be confessed, with too little reference, to the merits of ancestry in the one selected for breed. Had the latter principle had that full and ample consideration

to which experience has shown it entitled, it is believed their success in stock-breeding, would have been inferior to no other portion of the world. As it is, however, it must be acknowledged a fault, and though not a vital, yet a great one, in the practice of which, no distinguished or general excellence can ever be reached. We have seen, in late years, how they have been surpassed by the southern portion of New York, and especially Long Island, and New Jersey, in the greater number of superior roadsters, the natural result of a continued and thorough system of breeding choice mares, to the best formed, and most substantial, imported blood-stallions.

New England has, in former times, possessed some horses of unmatched qualities, which they have derived from various sources. Several importations have been made from the great source of all modern improvement, the sandy region of the east, and which, though at small cost, and sometimes accidental, yet they have been creditable to their subsequent possessors, from their proper use, and the just estimation in which they have been held. Among many so distinguished, pre-eminently stood, *longo intervallo*, the far-famed Morgan horse* of Vermont, and his more ancient compeer, the imported Barb Ranger, or as he was subsequently called, Lindsey's Arabian.† There is a tradition on our northeastern coast, that a valuable Arabian stallion was, in the early settlement of that country, washed ashore from a stranded vessel, and running wild with an excellent breed of native mares, then ranging the woods, he founded the stock of Narraganset pacers. These were, at one time, quite a distinct breed, valuable for their speed and endurance under the saddle, though they can hardly be said to have been a desirable race as a farm-horse. They produced a good deal of profit to their breeders, by shipping to the West Indies, for which market these animals were precisely adapted, the bloods of those islands esteeming the high spirit, and rapid, easy gait, as the very perfection of horse-qualification; and when once mounted on these mettlesome pads, by the aid of three negroes, one at the bit, and one at each stirrup, they probably felt as Richard the third, when he bid,

"My kingdom for a horse."

We once had a humorous description of a scrub-race near Chepachet, or somewhere in the region, of a more recent and famous race of bipeds, in which one of these pacers was pitted against a crack-racer, and finding he was losing ground in his running-gait, adroitly fell into his accustomed pace, and fairly distanced his opponent.

The importation by Gen. Eaton in 1806, of two choice Barbs, on his return from Tripoli, (where he rendered such distinguished services to his country, out of all credit for which he was most effectually *jockied* by our then administration,) produced no marked improvement in the horses of Massachusetts, where they remained for many years.

The history of that remarkable animal, the Arabian Ranger, (unsurpassed it is believed, by either the Darley Arabian, or Godolphin Barb,) as given in the Turf Register by Gen. Forman, is substantially the same as was related to me, by that eminent importer and breeder, and accurate judge of all varieties of stock, from the mettled-courser, and thorough-bred Durham, through all its gradations, to the graceful and choice varieties of the feathered tenants of the farm-yard, Charles Henry Wall, Esq.; whose birth-place, Pomfret, in Conn., was for a long time the home of this horse.

He was white, something over 15 hands high, of perfect form and symmetry, and was presented by the Emperor of Morocco, from the choice of his stud, to the commander of an English frigate, for some distinguished service. Before returning to his own country, he put into port, either in the West Indies, or one of our southern states, and while the ship was detained, the horse was sent on shore for exercise, and placed in a lumber-yard. His playfulness induced him to climb on a high pile of boards, from which he was precipitated, and before extricating him, he had, broken *three* of his legs. In this condition, he was presented to the captain of a New England vessel, who, aware of his great value, made every effort for his recovery, in which he was entirely successful, and brought him to New London, in Conn., whence he was taken to Pomfret. This was just previous to our Revolution.

Early during our struggles, in the formation of our infant cavalry, the attention of that invaluable officer, Capt. Lee, was called to a class of remarkably fine horses, the progeny of this animal, and from them, he furnished his troop, which, for a combination of all the requisite qualities of such a body, from the leader to the private, both men and horses, have no superiors. For sudden, terrific, and successful attack; for courageous, indomitable and bloody defence; or if borne down by hosts of opponents, for prompt and unassailable retreat; this band of heroic horsemen have in no age of the world ever been surpassed. The favorite white horse of Washington, which Stuart has immortalized in his splendid picture, in which the animal is seen supporting the arm of his beloved master, as he stands with a countenance teeming with inexpressible emotions, watching from the Battery, the embarkation and retreat of the last of his country's invaders, is said to have been got by the Arabian Ranger. If there be any authentic history to correct or confirm this statement, we hope to see it forthcoming, ere the survivors of those glorious scenes have passed from the earth.

But such progeny could not have been ennobled exclusively, by such a sire. Æneas was promised a royal race, only from Latium's imperial line; and it may be inferred conclusively, that the elements so happily blended in these coursers' veins, drew no inconsiderable portion of them from the merits of their dams. This noble beast, after having raised his reputation *without the aid of the course*, was, subsequently to the Revolution, sold as a special favor and at a high price, to Captain Lind-

* Supposed to have been a cross between a choice Norman and English thorough-bred.

† I object to the application of "*Lindsey*" to this animal, as Capt. L. was no further instrumental in extending his reputation or character, except as conjointly with other individuals, he aided in procuring his transfer from Massachusetts to Virginia.

sey, and taken to Virginia, where he became the sire of several distinguished running horses, and among others, Tulip. Many of the best horses of the present day, rank him in the line of their progenitors.

Here, then, we have two distinguished instruments in improvement, without the remotest indebtedness to the turf, and the improvement may be sustained and perpetuated to the latest generations without recourse to it, if necessary. But though we do not consider such a test any more essential to the selection of a horse for all the purposes of utility, than we do the stage, as a necessary adjunct

"T' improve the manners and to mend the heart;"

and though many winners of high estimation would be utterly worthless as breeders for any useful object, such as Col. Johnson's little Trifle, christened, No Trifle, after beating Black Maria when somewhat out of condition from her performance at Baltimore, when she took the prize of the Jockey Club some dozen years ago, but subsequently broken down in her 20-mile race with the same competitor; besides many others that it is needless to name; yet we would by no means exclude such as commended themselves to a favorable notice from their other good points, in addition to success on the course. There is too generally, however, where all qualities of form, and substance, and endurance, are satisfactory, an inherent viciousness of temper, a restiffness under restraint, or an untameableness of spirit that renders animals too nearly allied to the thorough-bred, unsafe or uncomfortable companions for ordinary use. In emergencies, and when great exertion is demanded, they are just the thing required; but they are not the farmer's horse, and it generally needs some removes from the thorough-bred to bring them within that class.

Good roadsters can be secured from many of the high-bred, or nearly pure animals, which may now be found in considerable abundance in many parts of the Union; for it is the recent observation of an experienced judge, that 30 or 40 years ago, it was the most difficult thing to procure a good horse in the Middle States, while now, it is the easiest. Those having a trotting cross, are perhaps preferable; such as Abdallah and Bellfounder; as they carry greater substance and more work-horse symmetry, than the pure blood. Many of the descendants of the latter especially, we have never seen surpassed for strength, endurance, and all desirable qualities within the same compass. We speak from personal experience, and considerable observation on the subject. A valuable filly we bred from the last, out of a thorough-bred mare, and sent to a friend in Massachusetts, has trotted in harness, drawing a heavy buggy and two persons, 22 miles in something under two hours, over an indifferent road; and under the saddle, with a rider of 160 lbs., over a very hilly road, she made 19 miles in an hour and 30 minutes, and soon after, returned the same distance in an hour and 20, in which, however, she had the advantage of ten minutes detention, for turnpike and other necessary stoppages. But her excess of blood has nearly rendered her useless for the harness, having run away with some, and fairly tired out all her drivers, and she is now turned out to breeding.

But even the trotter will not give us the horse of all work, the ever-ready, ever-patient drudge, equally safe to break in the tottling Nimrods to the stirrup; to carry a grist to mill; or tote the urchins to school, strung like Wethersfield onions on the saddle and crupper; drag the wagon to town; plow out the corn; or work single or double before the oxen; or, in short, in any and every place required. He must be also, a small and not over choice feeder, keeping in good health on anything coming within his reach, oats, potatoes, hay, straw, or potato-vines; or if turned out to shirk for himself, equally capable of living on a wet marsh, or a pine woods barren; never sick, never tired, and never out of temper. If we could wrap the skin of a Suffolk Punch, or a well-made, stout Canadian Pony over a mule's carcase, with the ears and tail lopped off, it would give nearly the form and character required; and next to this, the mule, the Suffolk Punch, or stout Canadian Pony is perhaps the very best thing to be had. There is a considerable range of the Punch family in the country, which, if reduced to some regular system of style, in form, size, appearance, &c., might secure the object desired. There is a race of brown or frequently, black horses, with a dark brownish or buff muzzle like the nose of a bear, that possess extreme hardiness, and could well be incorporated into the breed required.

It is probable this every farmer's drudge, this horse of all work, could more effectually be secured by the introduction of the Norman horse, than any other equally long bred and well defined animal. This race possess all the needful strength, weight, and hardiness, when properly reared. They do not stand high in the withers, they fill a large collar, and throw great weight into it; their fore-legs are good pullers, and their hind ones good pushers; and if their head and feet are somewhat heavy, 'tis not of so much consequence, for the last prevent his sinking so deep in the mud, and the other will serve him with good masticators for his rough food, and he is not inclined to impair his constitution by carrying his extra weight over fast, abating his speed in proportion to his burden. The principal objection we note about him, is the undue quantity of hair, as we must confess to our preference for muscle over mane, and tail, and fetlock gear. But a close system of breeding with judicious females, would soon run out the surplus gaiters, which is his greatest objection, on account of robbing the road of its gravel, or the field of its soil.

Mares are decidedly more economical for farm-work than geldings, and Youatt only expresses the best experience when he says "they cost less at first, and the farmer will get a great deal more work out of them. There can be no doubt that, taking bulk for bulk, a mare is stronger and more lasting than a gelding, and in addition to this, the farmer will have her to breed from."

The horse that has performed hard service during the winter, should always be permitted a free run at grass, when the first blades put forth in

spring. There are medicinal properties contained in its juices then, never subsequently afforded during the same season, which do wonders in purging away all the bad humors, or incipient diseases consequent on his *too intensely* artificial state; and his constitution, by this simple means, becomes refreshed, renewed, and invigorated, (for the individual so indulged,) tantamount to an hereditary improvement in his blood.

Among the valuable animals for agricultural purposes which have fallen under my observation, is a fine imported English cart-horse, belonging to Mr. Sotham of Albany. He will give excellent stock of the large breed of farm-horses.

R. L. ALLEN.

Buffalo, May, 1843.

GREAT WEIGHT OF BERKSHIRES.

Mr. Steddom has just slaughtered fifty-nine head of *full-blood* Berkshire hogs, of an average age of sixteen months, and of an average weight net of 329 lbs. They had no grain during summer, and were of the small prick-ear kind, and had been purposely somewhat in-and-in bred, so as to keep them rather small and fine. Mr. Harris, who packed them, says he never saw a finer lot of hogs—so light in their offal, and cut such clear pork. Dr. Keever of Ridgeville, has just slaughtered a full-blood barrow, 2 years, 2 months, and 7 days old, weighing net 616 lbs. There is another full-blood Berkshire near me, which will weigh over 800 lbs. I will give you his exact weight when killed a few weeks hence. I sold Dr. Phillips of Mississippi a young boar from Dr. Keever's imported sow, which he purchased of you, got by imported Newbury, which turns out about one story above all competition.

MUNSON BEACH.

Lebanon, Ohio, Jan. 13th, 1844.

The Cultivator gives the following account of a big Berkshire:—

Mr. Asahel Foote, of Williamstown, Berkshire Co., Massachusetts, slaughtered a Berkshire hog on the 9th of January, the dressed weight of which was 708½ lbs.! He was 2 years and 8 months old, and had been fattening only from the 10th of June last, at which date he was estimated to weigh 300 lbs. His fare for the three months was whey with a little corn in the ear occasionally—during the last four months was Indian meal, as much as he would eat—or about 6 quarts per day. His rough fat was 80 lbs.—that of his leaves, pared unusually close, 52 lbs. each. Thickness of the heaviest of the clear pork was full 10 inches. Leaf lard, 80 lbs.

But the Louisville Journal tells the largest Berkshire story that we have yet seen of a litter of pigs, beating its tobacco-stalk all hollow.

Mr. Thomas B. Spilman of Hunter Bottom, Carroll county, Kentucky, recently slaughtered 9 Berkshire pigs, full blood, of one litter, 20 months and 6 days old, weighing 3,429 lbs. Mr. S. says that these hogs were fed as a majority of farmers feed their hogs, no more care being taken of them than is generally taken of common hogs. The weight was certified by two respectable citizens. Three weighed over 400 lbs. each. Mr. S. banters the state to beat him with one litter of the same number of pigs.

We understand from verbal conversation with a friend just come to town from St. Louis, Missouri, that there is a thorough-bred Berkshire hog in that vicinity, whose live weight is over 1,100 lbs. He is represented as being fine in all points, notwithstanding his great weight.

It will be seen from the foregoing articles, that in addition to all their other excellences, the Berkshires can accommodate themselves to any weight their breeders please; and every day's experience of their merits, only the more firmly convinces us that they are the best breed of swine ever yet known.

NEW YORK STATE AGRICULTURAL SOCIETY.

ANNUAL MEETING.

THE annual meeting of the New York State Agricultural Society for 1844, was held at the Geological Museum, Albany, on the 17th of January—the President of the Society, JAMES S. WADSWORTH, Esq., in the chair.

The first business attended to was the admission of members—89 being admitted, paying $1 each.

The Report of the Committee on Field Crops, consisting of Messrs. Hillhouse, Bement, and Howard, was then read as follows:—

The committee to whom was referred the examination of the statements of the competitors for the premiums offered by the N. Y. State Ag. Society, on "*Field Crops*," having attended to that duty, respectfully offer the following Report:—

BARLEY.

1. To Bani Bradley, East Bloomfield, $10. Product, 140 bushels 21 lbs. from 2 acres and 21 rods.
2. To George Geddes of Camillus, $5. Product, 51 82-100ths bushels, average on five acres.
3. To Wm. Wright of Vernon, vol. of Transactions. Product, 82 bush. 22 lbs. on two acres.

INDIAN CORN.

There were three competitors for the premiums on Indian corn, neither of whom, the committee state, had sufficiently complied with the requisitions of the Society to justify the award of a premium.

WINTER WHEAT.

1. To N. S. Wright, Vernon, $10. Product, 80 bush. 55 lbs. on two acres.
2. To Wm. Wright, Vernon. Product, 73 bush. 12 lbs. on two acres.

SPRING WHEAT.

1. To Uri Beach, West Bloomfield, $10. Product, 65¾ bush. on a fraction over two acres.

RYE.

1. To Geo. M'Geoch, Jackson, $10. Product, 77 bush. on two acres.

PEAS.

1. To Geo. K. Smith, Utica, $10. Product, 46 bush. 20 quarts, on one acre and 14 rods.

2. To Myron Adams, East Bloomfield, $5. Product, 43¼ bush. per acre.

OATS.

1. To Joseph F. Osborn, Port Byron, $10. Product, 109¼ bush. on 1 acre, 11 rods, and 90 links.

2. To David Jones, Kendall, $5. Product, 209 bush. 11 lbs. on three acres and 11 rods.

RUTA-BAGAS.

1. To H. S. Randall, Cortlandville, $10. Product, 950 bush. on one acre and two rods.

CARROTS.

1. To Wm. Risley, Fredonia, $10. Product, 1,350½ bush. on one acre.

POTATOES.

1. To H. D. Grove, Hoosick, $10. Product, 518 bush. on one acre and 72 rods.

ESSAYS.

The President then read the Report of the Committee on Essays, from which it appeared that the prize for the best Essay—

1. On the Diseases and Insects injurious to the Wheat Crop, was awarded to John J. Thomas, of Macedon, Wayne county—$20.

2. On the Varieties and Culture of Wheat, to Rawson Harmon, Jr. of Wheatland, Monroe county—$20.

3. On the Introduction and Culture of new Agricultural Products, to John J. Thomas, of Macedon, Wayne county—$20.

REPORT OF THE COR. SECRETARY.

H. S. RANDALL, Esq., Cor. Secretary, not having prepared his Report, made a brief statement, from which it appeared that his efforts have been continued through the past year, with untiring zeal in behalf of the cause.

TREASURER'S REPORT.

The Treasurer, E. P. PRENTICE, Esq., read his annual Report, from which it appeared that there was in his hands at the last annual meeting, the sum of..... ...$1,843 92

Received at annual meeting from 69 members.....	69 00
Of Joseph Fellows, Geneva.....	100 00
Of James Wadsworth, Geneseo.....	50 00
Of James S. Wadsworth, "	50 00
Of W. W. Wadsworth, "	25 00
Of Wm. P. Van Rensselaer, Albany....	25 00
Of J. M. Sherwood, Auburn.....	22 00
Of J. B. Murray, Mt. Morris.....	10 00
Of R. L. Pell, Pelham.....	10 00
Of A. Ayrault, Geneseo.....	7 00
Of Edmund Kirby, Brownsville.....	5 00
Of Orville Hungerford, Watertown....	5 00
Of C. H. Carroll, Groveland.....	5 00
Subscriptions at Rochester.....	278 00
Monroe Co. Ag. Society.....	328 00
589 memberships at annual Fair.....	589 00
Receipts at gate in sums less than $1..	1,606 78
From the State Treasury.....	700 00
For interest on funds.....	92 99
Various other sources.....	87 25
	$5,906 94
Advanced by Treasurer.....	139 63
	$6,046 57

The payments from the Treasury during the year were as follows :—

For premiums, expenses, &c.....$2,956 57	
Invested in Albany City stock.....	3,000 00
Premium on do.....	90 00
	$6,046 57

Mr. Denniston of Orange, introduced a resolution directing the appointment of a committee of one from each senate district, by the chair, to report the nomination of officers for the ensuing year, which, at the suggestion of Mr. Bockee, was increased to three from each district.

Mr. Randall moved as an amendment to Mr. D.'s resolution, that the committee consist of one person from each county represented, to be appointed by the delegation from the several counties, and that this committee, in addition to nominating officers, report on the place for holding the next Cattle Show.

This resolution and the amendments proposed, drew out a debate of considerable length, in which Messrs. Denniston of Orange, Lott of Kings, Johnson and Seymour of Oneida, Hodgeboom of Columbia, Randall of Cortland, Nott of Albany, and several other gentlemen whose names we do not recollect, participated.

Mr. Denniston finally accepted the proposition to amend his resolution so as to refer to the committee the question of selecting the place for the Fair, in which shape it passed, and the following gentlemen were appointed the committee to nominate officers and to select the place for holding the next Cattle Show.

First District.—Messrs. Lott and Rappelye of Kings, and F. S. Williams of New York.

Second District.—Messrs. Denniston of Orange, Bockee of Dutchess, and Youngs of Queens.

Third District.—Messrs. Hodgeboom of Columbia, Vail of Rensselaer, and Prentice of Albany.

Fourth District.—Messrs. Cheever of Albany, Delavan of Saratoga, and Clark of Washington.

Fifth District.—Messrs. Kirby of Jefferson, Enos of Madison, and Seymour of Oneida.

Sixth District.—Messrs. Mack of Tompkins, Collier of Broome, and Faulkner of Livingston.

Seventh District.—Messrs. Sherwood of Cayuga, Rhoades of Onondaga, and Randall of Cortland.

Eighth District.—Messrs. Lee of Erie, Follet of Genesee, and Backus of Monroe.

Mr. Randall submitted the following, as a proposed amendment to the Constitution :—

Resolved, That the Presidents of County Agricultural Societies shall be ex-officio members of the Executive Board of the N. Y. State Agricultural Society.

On motion of Dr. Beekman,

Resolved, That the President of the Agricultural Society of the State of New York be authorized to appoint three individuals, members of the Society, whose duty it shall be for each to read an essay on some subject connected with agriculture, and that the essays be read at the meeting of the Society in January next.

On motion of Mr. O'Reilly, resolutions were adopted—1. That a committee of seven be appointed to compile and make arrangements for the publication of volumes from the Prize Essays of the Society, of suitable size for Common School Libraries—2. That a premium of $100 be offered for the best series of Essays "on the importance of scientific knowledge in prosecuting successfully the ordinary pursuits of Agriculture"—said series to be published also in one or two volumes suitable for the School District Library, the author being entitled to the copy-right. The committee subsequently appointed by the newly elected President, (Dr. Beekman,) in reference to these publications, consists of the Hon. John Greig of Ontario, Gov. Seward of

Cayuga, Lieut. Gov. Dickinson of Broome, John A. King of Queens, James S. Wadsworth of Livingston, Judge Savage of Washington, and Henry O'Reilly of Albany.

The committee on nomination of officers, &c., reported that they had agreed upon *Poughkeepsie*, as the place for holding the next Cattle Show of the Society.

They reported a nomination of officers, which, after an amendment, was accepted as follows :—

JOHN P. BEEKMAN, Columbia, *President.*

Vice Presidents.

1st Dist.—JAMES LENNOX, New York.
2d Dist.—THOMAS L. DAVIES, Poughkeepsie, Dutchess.
3d Dist.—JOEL B. NOTT, Guilderland, Albany.
4th Dist.—JOHN SAVAGE, Salem, Washington.
5th Dist.—EDMUND KIRBY, Brownsville, Jefferson.
6th Dist.—GEORGE J. PUMPELLY, Owego, Tioga.
7th Dist.—H. S. RANDALL, Cortland Village, Cortland.
8th Dist.—RAWSON HARMON, Jr., Wheatland, Monroe.

BENJAMIN P. JOHNSON, Rome, *Cor. Secretary.*
HENRY O'REILLY, Albany, *Rec. Secretary.*
THOMAS HILLHOUSE, Albany, *Treasurer.*

Additional Members of the Executive Committee.—George Wilkinson, Poughkeepsie; J. M'D. M'Intyre, Albany; George Vail, Troy; Alexander Walsh, Lansingburgh; Joel Rathbone, Albany.

The nominating committee reported the name of James S. Wadsworth for re-election as President, and Luther Tucker for re-election as Recording Secretary—both of which nominations were unanimously approved by the Society. But both of the individuals named, were compelled, by other avocations, to decline a continuance in their respective offices. E. P. Prentice, who was on the nominating committee, declined a renomination as Treasurer, which was warmly pressed upon him.

The Society assembled in the evening at the Capitol, where the newly-elected officers took their respective stations. After some brief remarks from the President in reference to the duties which he had just been elected to discharge,

The Annual Address was delivered by Mr. Knevels of Dutchess county. The address was replete with facts and arguments illustrative of the importance of agriculture in all its branches, and in its varied connexions; and was listened to with marked attention during the hour and a half which its delivery occupied.

In addition to members of the Society, the Assembly Chamber was filled with other citizens, embracing various distinguished friends of agriculture from different parts of the state. Among them were ex-President Van Buren, Lieut. Gov. Dickinson, several of the state officers, members of the legislature, &c.

Resolutions were passed, tendering the thanks of the Society to Mr. WADSWORTH, President—to Mr. PRENTICE, Treasurer, and to Messrs. RANDALL and TUCKER, Secretaries of the Society, for the able and faithful manner in which they had discharged the duties devolving upon them while occupying those stations.

On motion of Major Davezac of New York,

Resolved, That the thanks of the Society be tendered to Mr. J. W. Knevels for the able and instructive address delivered by him this evening, and that he be requested to furnish a copy for publication.

On motion of Mr. S. Smith of Putnam,

Resolved, That a committee of three persons be appointed to petition the Legislature to extend the operation of the existing law for the promotion of agriculture, and for other purposes.

Mr. John Dickson of Ontario county, gave notice that a motion would be made at the next annual meeting of this Society, to amend the Constitution thereof, so as to give to the Society, instead of the Executive Committee, the power of fixing the place where the Annual Fairs [Shows] are to be held.

On motion of Mr. Daniel Lee of Erie,

Resolved, That this Society regards the establishment of an Agricultural Institute and Pattern Farm in this state, where shall be taught thoroughly and alike, the *Science*, the *Practice*, and the *Profits* of good husbandry, as an object of great importance to the productive agriculture of New York.

The Society then adjourned.—*Cultivator.*

NORTHERN CALENDAR FOR MARCH.

MAPLE SUGAR should now be made by all who have trees suitable for it. The business may commence at the first running of the sap, whether in February or March, and continue as long as the nights freeze.

It is estimated that the state of Vermont, with a population of less than 300,000, made over 6,000,000 lbs. of maple sugar, in 1842, besides the syrup. This is a large item in the productive industry of a single state. If properly tapped, the trees are not injured. This may be done with a 1¼ inch auger, slanting the hole downward to the depth of 1½ inches, so as to form a cup; or a square hole may be made with a chisel and mallet. Another hole should then be bored with a spike gimlet, slanting upward, so as to draw off the sap from the cup formed above, and into this hole a tube of elder or other kind must be closely fitted. From one to three holes may be made according to the size of the tree; though no trees ought to be tapped of less than twelve or eighteen inches diameter. Many practise boring their holes with a ⅞ inch auger, slanting upward, and fitting an elder tube, from which the pith has been removed, of the full size of the hole. All the vessels used for the sap should be perfectly clean. As soon as drawn from the trees, strain the sap and boil in sheet-iron boilers, containing about five pails each, reducing twenty of sap to one of syrup. Then add the white of two eggs to three gallons of syrup, and stir till it boils. After the scum is collected, strain through flannel, and again boil till it will rope an inch, then pour into pans till it grains. After this place it, in wooden drains filled with gimlet holes and tapering to the bottom. To make into cakes it must be boiled till it will stir dry in a spoon. Care must be taken to prevent scorching during any part of the process.

Prepare ground now for hemp, tobacco, sweet potatoes, and castor beans. If any hemp remain unbroke, it should be dressed with all possible despatch.

Cattle must be closely looked after, and not allowed to wander in the roads or fields, dragging themselves through the mud and poaching on meadows, without any benefit to themselves. Still keep them sheltered and dry, and if they get well through this month they will be safe enough on pasture thereafter. Look well to the animals with young, especially such as are near their time, and give them a little extra feed, good hay, roots or meal. This helps them along over their troubles very much, and enables the young to get on their feet at once. Immediately on dropping the young, let the bag of the dam be well drawn, which, if not done by the offspring, should be done by the hand. Light food and in small quantities should be given for three or four days, when the animal may be gradually put on its full rations.

Grass seeds may now be sown, not in the stinted way too often practised, but *liberally*. Many fields produce but half a crop for the sole want of plants enough to draw up the nourishment they could otherwise furnish, and weeds come in to supply the place of

what ought to have been occupied by grass. Many practise sowing on the snow, which settles away and leaves the seed to occupy the ground which has been well prepared by the operation of the frost. For permanent meadows, several kinds of grass should be sown on the same field. Save your own clover, herdsgrass, &c. You can then afford to seed more plentifully, and *it is the most profitable crop a farmer can raise*, at the prices they have borne for the last four years. Get out all the manure to the fields that can be done, and spread it broad cast. Nothing is lost by this method; it warms the earth and decomposes rapidly, and is particularly beneficial to meadow lands.

Kitchen Garden.—Continue the directions given in January and February. Transplant into new hot beds the cucumbers and melons that were sown last month. Cauliflower plants raised from seed sown last month, as soon as they are three or four inches high, should be pricked into a new hot bed. Cabbage plants should be gradually inured to the open air, and as soon as the weather is sufficiently favorable, they can be planted in the open ground for heading. Seeds of cabbage, cauliflower, radishes, &c., can be sown in a warm border on the south side of a stone wall or close fence, as soon as the frost is entirely out of the ground, and mild weather has fairly set in. At the same time, sow a full crop of peas, kidney beans, spinach, parsneps, carrots, beets, onions, turneps, parsley, potatoes for early use, lettuce, &c. Transplant into the open ground the lettuce from the hot beds. Sow in hot beds seeds of the red pepper, tomato, and egg plant, to be planted in the open ground early in May.

The asparagus bed should now be forked and dressed, and new plantations can be made. In making plantations of this, as also of all other vegetables, the beds should be plentifully manured; and it should be constantly borne in mind, that superior vegetables can not be obtained, unless the soil is highly fertilized by abundant and repeated applications of manure.

Fruit Garden and Orchard.—When the weather is open, fruit-trees may be planted any time in the month. Gooseberries, currants, and raspberries, can still be pruned when it has not been before done. The former should be well manured and cultivated. If not done previously, strawberry beds should now be uncovered, hoed, and cleaned. New beds can also be planted out, although they will not bear as well as those planted the fall previous. It should be borne in mind, that the fruit as well as the vegetable garden, will afford much superior produce when it is well cultivated and highly manured. The cultivator will be amply remunerated for any extra trouble or expense.

Flower Garden & Pleasure Grounds.—As soon as the bulbs begin to break the ground, take off the litter carefully, and also uncover the shrubs and flower borders. Sow in hot beds a general assortment of annuals for early blooming. Dig up and put in order the flower borders that they may appear neat, and be ready to receive annual and other plants from the hot bed. In the latter part of the month, transplant biennials and perennials. Dig around the trees and shrubberies. They will grow better with cultivation. As soon as the ground is open plant diciduous, ornamental trees, and shrubs; evergreens will do better in May or June. Let the trees have plenty of room; it is a great error in planting to allow the trees so little space, that when they become large they must necessarily be spindling. Plant box edging and hedges, hoe and clean the flower garden throughout. Roll the lawn and put the gravel walks in order, trim the edges of the turf, and give it a top-dressing of lime or ashes when it is necessary.

SOUTHERN CALENDAR FOR MARCH.

In the early part of this month, if the season has not required it before, select your ground for your tobacco crop. It should be a rich sandy loam, capable of retaining moisture, and the more level the better. Plow or dig up the surface at least twice before planting, and level well each time. As soon as the young plants acquire a leaf the size of a dollar, take the advantage of the first wet or cloudy day, and commence setting them out in rows about three feet apart from north to south, and two and a half feet apart from east to west. In taking the plants up from the nursery, the ground should be first loosened with a flat piece of wood or iron, about an inch broad; then carefully holding the leaves closed in the hand, draw them up, and place them in a basket to receive them for planting. The evening is the best time for setting out plants, but it can also be done in the morning. Those set out in the morning, unless it be cloudy or rainy, should be covered during the day with palmetto leaves or other substances. Water the plants morning and evening until they have taken root. Fill up all vacancies where the plants die, with new ones.

The first fine weather after the twentieth of this month, commence planting your cotton seed. Put in one half of your crop ten days before the remainder, in order that you will not be too much driven in your harvest. Moisten your seed, and roll it with ashes and earth, and it will vegetate earlier, and will require a less quantity per acre.

After your ground is well plowed and prepared by dikes and ditches for inundation, sow your *lowland rice* broadcast, at the rate of a bushel, or a bushel and a half to an acre, and harrow it with a light harrow, having many teeth. Immediately after sowing, inundate the ground with water for three or four days, or until the rice begins to swell, and then shut it off. As soon as the young rice is about three inches high, let the water in again so as to leave their tops just above the surface and let it remain until ten days or a fortnight previous to harvest, when it should be drawn off.

Plant Indian corn if it was not done last month. Harrow and weed it, as soon as it is large enough. Attend to the sugar-cane, hoe and keep it clear of weeds.

Bed out sweet potatoes as early as the season will permit. Place them on the level of the ground previously dug up and raked even, as near as you can without touching; then cover them three or four inches, out of a trench dug all around the bed; this trench keeps the superabundance of water drained off, and therefore, the bed warmer. A bed 40 feet long and 5 wide, will plant 15 or 20 bushels of potatoes. When there is no danger of frost, scrape off part of the covering; and thus enable them to vegetate earlier. Give the ground a liberal coat of manure. Have coops in readiness for young chickens—early ones are best.

What was delayed last month may be successfully done in this. Set out your plants from your hot-beds —plant French beans—all kinds of melons—cucumber and tomato seeds—red peppers for pickling—celery seed for next winter, which must be set out when at a proper size, and let grow all summer, when it must be blanched. Transplant aromatic herbs, trim lemon and orange trees, procure the Brazilian variety of naval orange from St. John's river, East Florida, if possible. Sow millet-grass about the 20th of this month, manure the ground well, and you will be repaid for the trouble. Hoe the cabbages and lettuce which were transplanted last month, every ten days.

See Northern Calendar for May and June.

We have had the following communication and another from the same source, (which we shall insert in our April No.,) some time on hand; but owing to a great press of other interesting matter, and wishing to satisfy ourselves on a few particular points before publication, have delayed printing them till now. We deem these articles of great interest to the wool-growing public, and bespeak for them a careful perusal.

PAULAR MERINOS.—No. II.

HAVING been absent from the city for several months past, I have hardly seen the late numbers of the Agriculturist, nor found leisure to examine their contents. An hour spent with you and your correspondents is to me always interesting, and is a pleasure, to which I have just now treated myself; the first enjoyment of the kind for a long time past. In casting a glance through your pages for the last few months, I notice in the October No., at page 212, an article from the pen of Mr. Solomon Jewett, evidently intended as a reply to my remarks, that appeared in your paper of March last, upon his sheep, miscalled Paulars. I also now perceive, that among your "notices to correspondents," in the September No., you committed me to a sort of *necessity* of *replying* to Mr. Jewett, and of replying *early*. This had either wholly escaped my attention at the time, or I had since forgotten it. I hope that neither you nor your readers, nor Mr. Jewett especially, have been impatient for my rejoinder.

In exposing and denouncing, as I did in your May No., the *counterfeit* Paulars, I beg you to believe, that in thus fulfilling the obligation of a public duty, nothing was further from my wish or intention, than to get engaged in a newspaper controversy. And now, in reading Mr. Jewett's article, I really see but very little, if anything, in it, which requires a reply from me. Indeed I do not know that I should make any, were it not that a worthy and intelligent friend at my elbow, informs me that some persons, (mostly however among Mr. Jewett's friends,) have inferred, or *pretended* to infer, that my delay in responding to him, was because his positions were so impregnable, that nothing *could* be said in refutation of them. Such a supposition, if in earnest, is truly laughable! Rather than that such an unwarranted and ludicrous inference should be drawn from my silence, Mr. Jewett shall, without further delay, receive the notice which he covets; for though what he has written really requires no reply, yet as the general subject is one of importance, and of great public interest at the present moment, and on which a good deal more can be usefully and profitably said, I trust that in renewing and extending my remarks, the public good may thereby be promoted.

But it is due to my own inexperience as a writer for the public eye, that in dealing with so practised an adversary as Mr. Jewett, I should not consent to his getting up any *false issues* in the case, nor allow him cunningly to draw me off from the plain and strong ground I first occupied, and which I expect fully to maintain.

Let me "define my position" a little, and clear away some of the rubbish and fog which Mr. J. has attempted to draw around me. My former communication will speak for itself, as to what I really *did* say. But as to what I did *not* say—in the first place, I did *not* say nor intimate, (as Mr. Jewett would insinuate,) that the real Paular sheep of Spain, are, as regards "*fineness* of fleece, equal or superior to the *Saxons*." I have thrown out no such idea. I have instituted no such comparison. I made no sort of allusion to the comparative degree of fineness of fleece between Paular Merino and Saxon wool. It is well known to all, that none of the Spanish wool equals in *fineness* that of Saxony. But I did not even say that the Paular wool was the finest of all the *Spanish* Merino flocks. I only said that it was "*among* the finest and best," which assertion was not made without good authority, though it is well known that the *Escurial*, and perhaps some other of the travelling Merino flocks of Spain, yield *finer* wool than the Paular flock. No one questions or doubts this. But that does not make the Paular wool very *coarse* and *bad*, like that of Mr. Jewett's *pictured* and much *vaunted* Vermont ram.

I spoke particularly of *that ram*, of which, and of his great and heavy fleece, so much had been said by Mr. Jewett, and boastingly set forth by him in various publications, (obtruding the beast on the public, or at least inviting attention to him,) that the ram, or his character and peculiarities, had thus become in some sense public property. The public had an interest, a *great* interest, in knowing the *truth* in regard to him, if it could be ascertained.

In my former article, which has so disturbed Mr. Jewett, I expressed a confident opinion, which subsequent examination and inquiry have most fully confirmed, that the ram in question was "*not* a genuine Paular, *nor a pure-bred Merino of any sort*, but a *mongrel* sheep of some kind or other, probably having a cross of some sort of large English mutton-sheep, just by way of improvement."

I did *not* draw any comparison between Saxon *wool*, and the harsh, wiry, and coarse covering of the Jewett ram. As soon compare "Hyperion to a satyr!" or fine linen muslin to the coarsest Kentucky bagging. I should really much sooner have thought of dog's hair as a standard of comparison for the ram's fleece; for to that it bears a closer and stronger affinity. In my candor, I only compared it with English South-Down wool—and assuredly it is not in any respect *better*. The comparison with South-Down was not an unfair one; unless, indeed, the breeders of those excellent mutton-sheep, which furnished me the comparison, should feel that they have reason to complain of the liberty I have taken, which in truth I understand some of them have done, though I think without any just ground, the South-Down fleece not claiming a place among the *fine*, *soft*, and *valuable* wools, the merit of that breed lying rather in the good form of its *carcase*, and its excellent, fine-flavored *mutton*, to the *quality* of which I take pleasure in conceding the well-deserved palm of superiority.

Though in asserting the fact, that the covering of the Jewett ram was very coarse, and in my judgement "not entitled to be classed among the fine wools," I did not think of anything so ridiculous as the instituting of a comparison between the ram's wool and that of *Saxon* sheep, or those having a *cross* of Saxon blood, yet Mr. Jewett may himself do so, if he likes; and it is believed that he *can* do it too, without going beyond *his own* flock, for the *Saxon* mixture. Hence, the explanation of his being able to show fine *samples* of wool, and to exhibit sheep bearing fine wool. But did you not say, (I hear your readers inquire,) did not Examiner say, the ram's wool was very coarse and bad? I answer yes, and I have now solved the problem for you; all difficulty and inconsistency on my part, vanishes when we come to use our common sense and our eyes, and see the fact that Mr. J.'s *fine* wool and his *coarse* does not always grow on the same *sort* of sheep, or on those having the same kind of blood. And then, too, if we were near enough to see things as they really are, it would be found that Mr. J.'s *fine* sheep do *not*

produce fleeces of *clean* washed wool weighing 14 lbs., nor yet 12 lbs., nor even 10 lbs. Neither do I believe that his *coarse* sheep cut even the lightest of those weights, unless gummy and dirty, and perhaps after being for a length of time highly fed, and kept in a "hog-fat" condition.

With full knowledge of all this, I should of course not think of denying that Mr. Jewett has in his possession fine-woolled sheep producing wool fine enough to satisfy any reasonable demand for fineness, and to justify, I dare say, the price which he says he gets for his wool. But I beg leave to pity and condole with the buyers, if they have to take, in the lot, many of his precious "*Paular*" fleeces resembling that of the ram in question!

And here I cannot in justice avoid remarking, on the unfair, not to say deceptive, character and effect of giving out and publishing to the world, the value or price obtained for his wool, in such manner as to give the impression that it was the fair market value of such stuff as comes from the "pictured" ram in question. It certainly might very naturally convey that idea, to the generality of hasty and careless readers, though I will not say that such was its intention, for it is to be presumed that Mr. J. is too honorable a man to wish or even be willing thus to mislead the public. Surely he does not mean to say, nor be understood, that the covering that grows on that ram, or anything of like character, would have sold in July last, (the date at which he wrote,) for 37 cents per pound! No, not to any man in his senses; nor for over *half* that price, to any shrewd-judging or intelligent buyer, at all acquainted with the *quality* of wool. I do not hesitate to affirm this. I proclaim it as being *true*, knowing that it is due to the public at large, and especially to many wool-growers, who have an interest in knowing the *truth* of the matter. Mr. Jewett says that his "Paular wool is filled with gum, yolk, or oil before cleansing"—and *afterwards*, too, I presume he might have said, without overstepping the fact, so far as the *gum* is concerned, if that ram is to be taken as a fair specimen, and if, by cleansing Mr. S. meant, (as he doubtless did,) washing in pond or brook water before shearing. This is, however, to do him justice, a candid admission on his part, for which he has due acknowledgment. I have myself always been accustomed to make a distinction, and a pretty *broad* one too, between "*gum*, yolk, and oil," so called, as existing in the wool of Merino sheep. But not intending this for a learned disquisition, I will not now enlarge on, nor go into an analysis of, the nature and qualities of those substances.

Lest I should be thought by any one to have written in a harsh or unfair spirit toward Mr. J. and his sheep, I would, in proof of the truth and literal correctness of what I said before, and of what I have now said herein, as to the extreme coarseness and bad quality of the covering of that Jewett ram, refer you (and any of your readers who feel an interest in the subject,) to the sample of his wool in your own possession, which I presume, by your leave can now be seen and examined at your office in New York, by those who are, like myself, curious in those matters, and fond of seeing with their own eyes. As to the *fairness* of the sample, it is probably enough to say that it was, as I understand, furnished by Mr. Jewett himself, who would of course not be likely to select the *worst* locks of wool as a specimen of his favorite sheep. By examining some of the *finer* samples of Mr. Jewett's wool, on the same card, and furnished by him at the same time, you, and those among your readers who are familiar with the subject of wool, and critical judges of the article, will find in its peculiar character abundant and satisfactory evidence of its having partaken of the *Saxon* mixture. To all good and close judges, it tells its own story; indeed, so plainly, that "the man who runs may read." Look at, and examine it for yourself, Mr. Editor; and let your readers and the public call at your office and do the same. Let them examine, and then say whether those sheep are of *any* particular or *pure* breed; and especially, whether those different samples are, or by any possibility *could* be, the produce of one and the *same* breed.

If any of your readers want to know what is *gum* in distinction from *yolk*, in wool, let them examine and *feel* your sample from that Jewett ram, which he says yielded a fleece weighing 14 pounds! (Fourteen pounds of what?) They will then, after seeing for themselves, be able to judge not only of its *quality*, but also, if they happen to be *Yankees*, can give a pretty good *guess* as to its probable degree of cleanness—or in other words, whether the 14 pounds was mostly made up of *wool*, or of *gum*, dirt, or foreign matter, which does not enter into the composition of cloth, and for which our wool-buyers and manufacturers can not afford, and will not any longer consent, to *pay*. They can also then judge whether such wool has been worth in market, at any time within a year past, 37 cents per pound.

Speaking of *gum*, a person with his eyes shut, a *blind* man, having any sense of *touch* in his fingers, one would think might easily be able to *feel* the gum in that ram's wool. Though brook-washed, on the sheep's back, it would, after being shorn, lose *at least one half its weight*, (and probably considerable more,) by anything like thorough cleansing, such as a manufacturer has to give it before working: and then what would be left of it, would be of a grade worth a good deal less than 37 cents per pound. Facts are stubborn things, I well know; but still we farmers and wool-growers, who have a living to get, want to see and look at things somewhat as they really are. You, Mr. Editor, must not only permit us to do so, but as far as in your power to do it, lend us a helping hand.

I find that I have not yet even fully "opened" Mr. Jewett's case, and that of his Vermont Paulars. Indeed, I have as yet hardly begun. To do them anything like justice, so as to satisfy Mr. J. and the public, will require more space than you can at this time afford to the subject, which I assure you is very far from being exhausted; on the contrary, depend on it, the vein will grow richer as we go deeper and proceed farther in working it. All this is but prefatory. I propose to handle the subject (now I am hold of it) "without mittens," as the saying is, though of course with all possible courtesy which the case admits of, consistent with what is due to truth and the public interest.

EXAMINER.

New York, Nov. 18th, 1843.

INDIGO IN LOUISIANA.—The article has been pronounced by competent judges as being not inferior to the best Caraccas indigo, selling at $2 per pound. The editor of the Baton Rouge Advocate says: One acre of ground well cultivated, in West Baton Rouge, will yield from forty to sixty pounds; that it requires only from July until October for cultivating it; that there is not connected with it one third of the expense or time that is generally required for the cultivation of cotton. He therefore intends in future to turn his attention to the cultivation of indigo in preference to cotton.

FOREIGN AGRICULTURAL NEWS.

By the arrival of the Steampacket Hibernia, we are favored by full files of our European journals up to the 4th of February.

Markets.—*Ashes* have declined, and are slow of sale. *Cotton* has advanced from $\frac{1}{8}$ to $\frac{3}{4}d.$ per pound during the past month, and an enormous business been done in it. The unprecedented number of 109,570 bales having changed hands in a single week, and the sales for the preceding five weeks were 355,000 bales, against 127,000 during the same time last year, while the import has been 74,000 bales less. The Pacha of Egypt has ordered an advance of considerable extent on all his cotton in the European market. Stock on hand at Liverpool on the 1st February, 625,000 bales, against 522,000 same time last year. *Cheese* of a fine, fat, well made quality, is in good demand. *Beef*, *Hams*, and *Pork*, selling moderately. *Flour*, *Lard*, and *Tallow*, dull. *Flaxseed* brisk, an unusual quantity will be sown in England this year. *Rice*, *Tobacco*, and *Naval Stores*, a steady demand. *Seeds* unaltered.

Money is very abundant, and interest as low as ever again. The bullion in the bank of England is upward of £13,000,000, (about $62,000,000.) *Stocks* of all descriptions are on the advance.

Business generally is active, and the people well employed—a marked improvement has taken place over the corresponding period of last year.

Steam-Plow.—This instrument continues to work favorably in morasses and bogs where horses can not be introduced.

Longevity of Horses.—Mr. Blair speaks of three horses which he knew, that died at the ages respectively of 30, 37, and 39 years. Mr. Percival mentions one that died in his 62d year.

Waste Land in Great Britain.—It is estimated that there are at least 30 millions of waste land in Great Britain, one half of which is susceptible of cultivation.

Sheep in the British Isles.—These exceed 30 millions in number, which is 10 millions more than we have in the United States, and yet how small their territory compared with ours.

Alpacas in England are fast being naturalised. They prosper well, and their fleeces also improve under the care bestowed upon them—they now shear usually from 10 to 13 lbs. each. Peru produces about 5,000,000 lbs. of Alpaca wool. Its texture is nearly like silk, and it makes a cloth highly prized by the Spanish ladies. We often saw these beautiful animals when in England. Our climate would suit them well, and we wish some gentleman in this neighborhood would undertake their introduction into the United States.

Cochin China Pullets.—At a dinner recently given by the Queen of England at Windsor Castle, among other good things served up on the occasion, we notice were several Cochin China pullets, which weighed between 6 and 7 lbs. They had been reared and fattened at the royal aviary.

Manuring Strawberries.—There appears an undue fear of manuring strawberries. I have read somewhere that all plants that throw out suckers or runners rapidly deteriorate the soil, and that a power of escape to new ground is given by the runners. If this is correct, it is a reason for the good results I have always seen of manure. How rarely, except where strawberries are grown for profit, do we see room enough given. Beds of strawberries are objectionable for this reason, and it is this cause rather than manure that leaves are more abundant than fruit. I have tried and proved this. Where strawberries are grown for profit, (that is, grown at all in the true sense,) they should be planted in rows—the large sorts not less than 30 inches in the row, and 15 inches from plant to plant, and no runners suffered to remain. By these means, with deep trenching and early planting, any sort worth cultivating may be grown large and abundantly.

Mr. Colman.—We understand that Mr. Colman has nearly recovered from the effects of the accident of being thrown from his horse when visiting a farm near London, and that he is rapidly writing out his tour. The public may expect to see the first number shortly.

Horticultural Mission to China—Mr. Fortune from the English Horticultural Society arrived in China on the 9th of July last, and had every facility rendered him for prosecuting his labors. When last heard from he was preparing to visit the northern provinces.

Shed feeding of Sheep.—Since Mr. Childer's experiments of the great saving of food and greater gain in weight of sheep fed under cover, sheep feeding under sheds is rapidly increasing in England.

To Kill Worms.—Use a solution of corrosive sublimate.

Destruction of Snails by Common Salt.—Having strewed some common salt upon the ground, I placed a number of snails among it; all those that came out of their shells and touched the salt, immediately threw out a greenish globular froth, and in a few minutes were dead.

Early Standard Currant-Trees.—As a matter of fancy, I have for some years grown currants as standards; and observing the constant crop that clusters round the head, and the little room they require, I potted about this time last year several three-year-old trees, and placed them on the back stage of a greenhouse; they bloomed and set their fruit well, and ripened about five or six weeks earlier than the out-door fruit. They were trained with small heads, and with the ripe fruit were remarkably showy. They are very easy to manage. The cuttings should not be shortened back, but disbudded to the top bud, repeating the disbudding till it reaches the required height. A plant three years from the cutting yielded in my greenhouse about three pints of fruit.

To keep Mice from Peas.—Having tried a number of plans for preventing mice from destroying winter-sown peas, I have found none so effectual as the following: Steep the peas a short time in salad oil, and then dust them all over with rosin ground to a fine powder, then sow them immediately afterward.

Enormous Egg.—An egg was this week laid by a goose at a farm in Quermore, near Lancaster, whose weight was 10 ounces, its circumference longitudinally was $10\frac{1}{2}$ inches, and it measured $8\frac{1}{4}$ inches round.

Large Onions.—An average sample of 15 onions, which weighed upward of 10 lbs., was grown on a small croft in the fertile village of Longton, near Preston, which had been sown with 5 lbs. of seed from the same ground. It is supposed more than as many tons have been gathered.

Twine for fastening Wall Trees.—In training plants and fruit-trees to the wall, I have for some time used twine dipped in linseed oil, and dried, instead of bits of cloth; it is neater, more convenient, and affords no harbor for insects. Drive the nail into the required place, slip a tie with the twine over the head, bring the branch down and secure it with a knot. A tree secured in this manner is capable of being better trained, the branches better secured, and the whole appearance more workmanlike.—Gar. Chron.

Editor's Table.

The Western Farmer and Gardener's Almanac, for 1844, edited by A. Randall, published by E. Morgan & Co., 13 Main street, Cincinnati. This is a duodecimo of 114 pages, containing a brief northern and southern calendar, together with much other matter useful to the farmer. It is handsomely embellished with numerous wood cuts, which we presume are from the pencil of Mr. Foster. The price is 25 cents, and if it were a dollar, the work would be well worth possessing. We recommend it to the farmers especially at the west and south, and hope it may have a large sale.

The New Genesee Farmer commenced its 5th Volume on the 1st January last, and continues its quarto form of 8 pages monthly, for 50 cents a year. Dr. Daniel Lee of Buffalo, among the most able agricultural writers of the day, and T. C. Peters, Esq., one of our own best correspondents, are now associate editors with Mr. Bateham, in the Farmer. It ought to have a large subscription list.

Transactions of the Essex Agricultural Society for 1843; an octavo pamphlet of 111 pages, for which we are indebted to the Secretary, the Hon. Allen W. Dodge. The address is by Mr. Saltonstall, and a capital good one. The report on plows is a valuable document; that on cows shows good milkers of the native breed; while the one on swine, "henceforth to be the *lights* of the world," gave us many a hearty laugh. But we can not give further particulars, save that we see fruit and forest-trees reported upon, and some other things to which the societies in this state have not yet turned their attention. It would be well for them to copy the example of old Essex.

Travels in the Californias, and Scenes in the Pacific Ocean; by Thomas J. Farnham, author of Travels in the Great Western Prairies, the Anahuac, and the Rocky Mountains, and in the Oregon Territory, in Nos. of 96 octavo pages each, price 25 cents. Mr. Farnham is a very pleasing and intelligent writer, and all who feel any interest upon the subject of the Californias, the next country destined to be settled by our nomadic tribes, can not do better than to purchase these graphic Travels.

Second Annual Report, by Henry S. Randall, Superintendent of Common Schools of Cortland county; together with a special report on Common School Libraries. We have merely had time to glance our eye over this report of Mr. Randall, and what little we read we liked; but why are not agricultural books mentioned by him? it certainly can not be that he undervalues their importance, when he himself is one of our most pleasing writers on this subject.

The Young Gardener's Assistant, in three parts; containing Catalogues of Garden and Flower Seeds, with practical directions under each head for the Cultivation of Culinary Vegetables and Flowers; also directions for Cultivating Fruit Trees, the Grape-Vine, &c.; together with select sorts of the same; to which is added a Calendar to each part; showing the work necessary to be done in the various departments, each month of the year—the whole adapted to the climate of the United States. Tenth edition, improved; by Thomas Bridgeman, Gardener, Seedsman, and Florist, with a portrait of the author: New York, 1844; for sale by Saxton and Miles, 205 Broadway.

This is a handsome octavo edition of upward of 500 pages, containing in fact three works in one, by one of the oldest, most experienced, and practical writers on Horticulture in the United States, and the title which we have copied at length, above, contains the best idea that we can give of this work. When the reader is informed that this is the Tenth Edition, he will be satisfied that a discriminating public have pronounced it the best and most complete on Horticulture yet issued from the American Press. The price is $2.

The Fruit Cultivator's Manual, The Kitchen Gardener's Instructor, and The Florist's Guide, comprised in the above volume, are also published in separate parts, and may be had bound in boards, at 50 cents each.

Proceedings of the New Castle County Agricultural Society and Institute, at the Eighth Annual Meeting, held at Wilmington, September, 1843, with the address delivered by William Darlington, M. D. This is an octavo pamphlet of 58 pages, the reports of which are to the point, and appropriate. Dr. Darlington, the celebrated botanist, made an admirable address, in which, among other things, he forcibly points out the advantage to the farmer of making himself acquainted with scientific names of plants, &c., which most immediately concern him.

Great Dairy Qualities of a Devon Cow. Mr. C. P. Holcomb of New Castle, Delaware, has a Devon cow called Lady, which produced 19 lbs. of butter in a single week, and averaged 14 lbs., 9 oz. for 12 weeks. Who now shall say that the Devons are not good dairy cows, especially where making butter is concerned? Lady was awarded the first premium at the Newcastle Agricultural Show, and well she deserved it.

American Hemp going to England.—We understand that a house in St. Louis has engaged to send 1,000 tons of hemp to England the ensuing season.

Simultaneous Communications.—We have on hand, recently sent us, several communications which we find are also furnished other papers simultaneously with us for publication. We now say to all correspondents that we want no more such. If a communication can not be sent to us solely, and allow sufficient time for it to appear in our columns before another paper makes use of it, however valuable it may be, we do not wish to receive it. In all such matters we are determined hereafter to stand first or not at all.

To Correspondents.—We have been favored with a shower of communications the past month, which shall have a place as fast as we can find room for them. We had selected a number of excellent articles from other journals for publication; but so long as our correspondents continue thus to favor us, we shall devote the paper mainly to them. We had several editorials written for this No., which we have thrown out, and have also cut down the Foreign Agricultural News department, and Editor's Table, each of which we wished to extend. These, however, we shall enlarge hereafter. Several articles announced last month we have not found room for, and have since received communications from Thomas Addis Emmet, Americus No. 5, J. S. S., Robert L. Pell, A Traveller, B. G. Boswell, Examiner No. 3, T. W. Coit, H. E. M., William R. Prince, A., Philip Winfree, Cornelius Baker, L. Bostwick & Co., and J. H. Lyman.

The attention to agriculture is greatly on the increase, and a renewed spirit is reviving in our land. The farmers seem disposed to arouse themselves from their late lethargy, at least we so judge from our greatly increased subscription list. But we find our paper is still unknown in many parts of the Union, and shall feel greatly obliged to our friends to take every possible pains to extend a knowledge of it. Never mind giving away an occasional number, we will gladly always freely replace it.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, FEBRUARY 22, 1844.

ASHES, Pots,	per 100 lbs.	$4 62	to	$4 75
Pearls,	do.	5 06	"	5 12
BACON SIDES, Smoked,	per lb.	3½	"	4½
In pickle	do.	3	"	4
BALE ROPE	do.	6	"	9
BARK, Quercitron	per ton	23 00	"	24 00
BARLEY	per bush.	58	"	59
BEANS, White	do.	1 25	"	1 75
BEEF, Mess	per bbl.	5 88	"	7 00
Prime	do.	3 88	"	5 00
Smoked	per lb.	5½	"	7
Rounds, in pickle	do.	3	"	5
BEESWAX, Am. Yellow	do.	28	"	31
BOLT ROPE	do.	12	"	13
BRISTLES, American	do.	25	"	65
BUTTER, Table	do.	12	"	20
Shipping	do.	6	"	10
CANDLES, Mould, Tallow	do.	9	"	12
Sperm	do.	30	"	38
Stearic	do.	20	"	25
CHEESE	do.	4	"	7
CIDER BRANDY, Eastern	per gal.	35	"	40
Western	do.	28	"	35
CLOVER SEED	per lb.	10	"	11
COAL, Anthracite	2000 lbs.	5 00	"	5 50
Sidney and Pictou	per chal.	5 75	"	6 25
CORDAGE, American	per lb.	11	"	12
CORN, Northern	per bush.	48	"	50
Southern	do.	46	"	48
COTTON	per lb.	8	"	12½
COTTON BAGGING, Amer. hemp	per yard.	16	"	18
American Flax	do.	15	"	16
FEATHERS	per lb.	25	"	31
FLAX, American	do.	8	"	8½
FLAX SEED, rough	per 7 bush.	9 00	"	9 75
clean	do.	10 00	"	11 00
FLOUR, Northern and Western	per bbl.	4 75	"	5 00
Fancy	do.	5 25	"	5 50
Southern	per bbl.	4 75	"	5 00
Richmond City Mills	do.	5 75	"	6 00
Rye	do.	3 50	"	3 62
HAMS, Smoked	per lb.	5	"	10
Pickled	do.	4	"	7
HAY	per 100 lbs.	55	"	65
HIDES, Dry Southern	per lb.	9	"	11
HEMP, Russia, clean	per ton.	180 00	"	185 00
American, water-rotted	do.	140 00	"	180 00
do dew-rotted	do.	90 00	"	140 00
HOPS	per lb.	7	"	9
HORNS	per 100	1 25	"	5 00
LARD	per lb.	5½	"	7½
LEAD	do.	3½	"	4
Sheet and bar	do.	4	"	4½
MEAL, Corn	per bbl.	2 56	"	2 75
Corn	per hhd.	12 00	"	12 50
MOLASSES, New Orleans	per gal.	30	"	32
MUSTARD, American	per lb.	16	"	31
OATS, Northern	per bush.	35	"	38
Southern	do.	30	"	33
OIL, Linseed, American	per gal.	80	"	85
Castor	do.	85	"	90
Lard	do.	60	"	65
OIL CAKE	per 100 lbs.	1 00	"	— —
PEAS, Field.	per bush.	1 25	"	— —
PITCH	per bbl.	1 12½	"	1 37
PLASTER OF PARIS	per ton.	2 00	"	2 25
Ground, in bbls	per cwt.	50	"	— —
PORK, Mess	per bbl.	8 75	"	10 00
Prime	do.	7 00	"	8 00
RICE	per 100 lbs.	2 37	"	3 00
ROSIN	per bbl.	60	"	85
RYE	per bush.	68	"	70
SALT	per sack	1 35	"	1 50
SHOULDERS, Smoked	per lb.	4	"	6
Pickled	do.	3	"	4
SPIRITS TURPENTINE, Southern	per gal.	32	"	34
SUGAR, New Orleans	per lb.	5	"	8
SUMAC, American	per ton	25 00	"	27 50
TALLOW	per lb.	6	"	7½
TAR	per bbl.	1 25	"	1 50
TIMOTHY SEED	per 7 bush.	13 00	"	15 00
TOBACCO	per lb.	3	"	6½
TURPENTINE	per bbl.	2 12	"	2 50
WHEAT, Western	per bush.	1 00	"	1 07
Southern	do.	90	"	1 00
WHISKEY, American	per gal.	23	"	25
WOOL, Saxony	per lb.	35	"	50
Merino	do.	35	"	40
Half-blood	do.	25	"	30
Common	3do.	20	"	25

New York Cattle Market—February 19.

At market, 1050 Beef Cattle, 165 Cows and Calves, and 600 Sheep.

PRICES.—*Beef Cattle*—We quote to correspond with last week, viz. $4.50 *a* $5, to $5.50, *a* $6, with a few extra at $6.25 *a* $6.50. 250 unsold.

Cows and Calves.—There were 140 sold at $15 *a* $26 each.

Sheep and Lambs.—The market was cleared at $1.75 *a* $3.50 each, according to quality.

Hay.—A good supply of loose at 62½ *a* 75 cents per 100 lbs.

REMARKS.—*Ashes* are dull of sale. *Cotton*, notwithstanding the late rise in England, and unprecedentedly large sales, has declined ¼ of a cent per lb., since the arrival of the Hibernia. The reason of this is, that our market is still higher than that of Europe, and shippers have now made up their minds that the article must go forward. Export from the United States since 1st September last, 392,058 bales; same time last year, 892,136; same time year before, 574,168. *Flour* and *Meal* are held firm, but little doing. *Grain* of all kinds in fair request. *Hay* is dull. *Hemp* is more firm, with an upward tendency, since the late speculations in Manilla. *Molasses* has a downward look. *Naval Stores*, moderate sales. *Beef* and *Pork*, move slowly. *Lard* is more brisk. *Rice*, *Seeds*, *Sugar*, *Tallow*, and *Tobacco*, small transactions at present. *Wool* continues on the rise, and is in good demand.

Money is as plenty as ever again, and good bills are discounted at 3½ to 4 per cent., and it can be had on bond and mortgage in the city at 5 to 6 per cent.; out of the city, in the state, 7 per cent. is readily paid; but very few of our capitalists seem willing to lend at that. Money from this city, *out of the state*, can not be had at any price, so distrustful are our capitalists of foreign laws and securities.

Stocks are slightly on the advance again.

Business generally is opening brisk this spring, and all kinds of merchandise are on the rise.

Real Estate is getting more and more in demand, and rents, especially for good business locations, greatly advanced.

The weather is very mild for the season, and the winter has been much as we anticipated, page 267 of our last vol. We think we could give a pretty shrewd guess as to what the present spring will be, but we do not care to further risk our prophetic reputation. Everything on the whole appears extremely promising, and we anticipate a long and prosperous career for the country.

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